The Professional Partnership: An Alternative Paradigm for University Governance

Zur Erlangung des akademischen Grades eines Doktors der Wirtschaftswissenschaften

(Dr. rer. pol.)

von der Fakultät für Wirtschaftswissenschaften des Karlsruher Instituts für Technologie (KIT)

genehmigte DISSERTATION

von

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Tag der mündlichen Prüfung:	13.11.2014
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Karlsruhe, 2014

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1 Reform of German Public University Governance

1.1 Introduction

Does it make sense to run a university like a firm? Are there alternative, private-sector models of management and governance more appropriate and effective for the university context than the corporate model? The chief aim of the dissertation is a plea for reformers from the policy and scientific communities to think beyond the corporate model in considering alternative private sector models of management and governance in the context of the university reform debate. To this end, the dissertation raises a number of additional questions, including: Why are so many knowledge-based firms organized as professional partnerships? Can transaction cost theory shed some light on this choice of organizational form? Can agency theory shed some light on the most appropriate mode of organizational management and governance?

In seeking to provide answers to these questions, an interdisciplinary approach is taken. Namely, arguments are formulated on the basis of transaction cost theory, agency theory and institutional theory, thereby drawing from the fields of economics, organization studies, sociology and psychology. To further underscore the significance and timelines of the questions addressed in the subsequent chapters, the author would like to acknowledge that this work was funded by a grant from the German Federal Ministry of Education and Research (BMBF, grant number 01PW11015), with the explicit aim of providing some normative answers to the questions of higher education finance and governance reform. In the following paragraphs, a brief overview of some key historical developments in the German public university landscape is offered in order to place the current work in its historical context. After that, the contributions of the constituent chapters of the dissertation are summarized.

1.2 Historical Background

While we tend to take the notion of corporate governance as a given, it is important to remember that it is a relatively recent concept and topic of interest among practitioners in the financial sector, in policy circles and among academics. The seeds of what we know today as corporate governance were sown as recently as the early 1980s and even then, limited primarily to discussion in the United States. It is telling that the first international code of good governance was published by the OECD 1999[1]. In the public sector, the topic is even newer and less well defined, given that it has become a part of the discourse even more recently and that what constitutes public governance is more difficult to pin down. The goals of public organizations are more numerous and ambiguous than those of their private sector counterparts, stakeholders often have competing and conflicting interests, organizational outputs and outcomes do not lend themselves readily to measurement, and,

[1] It was revised in 2004.

typically clear-cut agency relationships do not exist, complicating the application of corporate governance practices. And the list goes on. Despite the difficulties of adopting corporate models of management and governance in public sector organization, the tendency to do so has only increased over the last three decades, led by the New Public Management ("NPM") reformers.

In Germany, NPM-style reform in the higher education sector gained traction in the late 1990s when *Hochschulreform* was made a high-profile political issue in the campaign of then-Chancellor Gerhard Schroeder in the 1998 federal elections. As described by Schimank, "at the core of NPM lies the principle of increased competition among and within universities – competition for resources, students and national as well as international standing" (2005: 365). Attempts to stimulate such competition have led to the introduction of tuition fees for students and a new salary structure for professors, external monitoring and control by newly founded accreditation bodies based on output-oriented indicators, and the allocation of public finance based on a variety of institutional performance indicators (Huefner, 2003).

Some might consider higher education reform in Germany long overdue. For example, student enrollment more than doubled twice in the fifty years: first, between the mid-1960s and mid-1970s, and again between 1970 and 1990. During the first phase of high growth, state governments expanded institutional funding, enabling an increase in the number of professorships and scientific staff that kept pace with the increase in student enrollment. However, limited state resources meant that the 100 percent increase in student enrollment during the second phase of high growth could only be matched with a 16 percent increase in the number of academic staff (Huefner, 2003: 147).

Since the sudden increase in demand for highly qualified professors was not matched by a corresponding increase in supply, the first phase of high growth was associated with a general decline in the quality of the academic staff (Schimank, 2005: 371). The second phase of high growth was associated with an overall decline in the quality of teaching and scientific performance, which could be explained by the fact that the ratio of students to academic staff increased from 13:1 to 24:1, with some mandatory lectures being visited by as many as 1,000 students at any given time (Huefner, 2003; Kuepper, 2003). Tight state budgets over the years have also resulted in the deterioration of university buildings and equipment[2], which has contributed to a further lag in international competitiveness. More recently, the Bologna process, which aims to harmonize higher education within Europe, has created external pressure on German universities to make reforms. For example, degree programs have had to be revised in order to make them comparable with degrees awarded by foreign

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[2] *Die Welt*. 2013. Deutsche Unis sind überlastete Milliardengräber. http://www.welt.de/politik/deutschland/article122683396/Deutsche-Unis-sind-ueberlastete-Milliardengraeber.html accessed on December 8, 2013.

universities. In addition, the goal of promoting quality and transparency within and across institutions offering the same or similar degrees has led to the establishment of independent accreditation bodies. Consequently, certain features of the corporate model of organizational management and governance are being introduced into the German system of higher education in an effort to expedite the reform process.

1.3 Thinking "Outside the Box"

In Chapters 2 and 3 of the dissertation, a theoretical foundation for the formal professionalization of more types of knowledge work and for the partnership as an organizational form and as alternative governance structures for knowledge-intensive organizations and transactions in knowledge-intensive services is developed. In the academic context, these complementary approaches to governance are proposed to be superior to both the traditional public bureaucratic model of university administration and the corporate style of management and governance. In particular, the professional partnership is argued to optimize the governance of knowledge-intensive service transactions, such as education, in a cost minimizing way. Arguments are grounded in agency theory, institutional theory, and transaction cost theory. Importantly, such an approach to university governance is also consistent with the spirit of the German *Hochschulgesetz*, referenced above, as well as several recent reports published by the *Wissenschaftsrat,* which plead for fundamental and far-reaching reforms in German higher education, including the professionalization of academia.

At first glance, the ideas proposed in this dissertation may appear quite radical to many, while careful consideration will reveal that far from being a radical departure from the norm, they are much more consistent with the way academics view themselves and are viewed by the broader society – as a community of highly educated professionals dedicated to the advancement of scholarship, science and knowledge. In line with Binderkrantz and Christensen, the dissertation takes the position that a transfer of 'lessons learned' from the private sector to the public sector is possible in the domain of organizational governance; however, as stated by those authors, "it presumes careful analysis of when it is defensible and what the lesson is" (2012: 46). The goal of the dissertation, therefore, is to stimulate reformers to think outside of the corporate governance box and to take a more nuanced approach in their selection of private sector models of management and governance. Specifically, this work offers an alternative to the corporate model that is, it is argued, more appropriate, in that it is much more consistent with the nature of academic work – knowledge work - and the characteristics of academics as knowledge workers. In particular, the dissertation makes the case for the professional partnership as an exemplary private sector model of management and governance that is uniquely well-suited to knowledge-intensive work and knowledge workers. Starting from the anecdotal observation that in the private sector, the professional partnership has historically been the most widely adopted organizational form in many knowledge-intensive sectors of the economy, a theoretical case is made for the broader professionalization of knowledge workers and for the wider adoption of the partnership as an organizational form best-suited for managing and governing knowledge workers and transactions in knowledge-intensive services. The dissertation then takes a closer look at the case of the public university in Germany, evaluating opportunities for reform following the professional partnership model and recommending the professionalization of academia, along with two different approaches for the practical implementation of the partnership concept. In developing these ideas and arguments, the dissertation proceeds as follows.

Chapter 2 opens with a general examination of optimal modes of governance for transactions in knowledge-intensive services. Given that its primary goal is the matching of matching discrete economic transactions with appropriate governance structures, a transaction cost theoretic approach is taken. However, it is quickly recognized that transaction cost theory falls notably short where knowledge-intensive service transactions are concerned. However, this is not entirely surprising, since Williamson himself did not consider his theory particularly relevant in this context.[3] Consequently, the chapter seeks both to elaborate this gap in transaction cost theory and to fill it by extending and improving its prescriptive power when applied to transactions involving knowledge-intensive services. To this end, the chapter has two aims. Firstly, transaction cost theory is extended to explicitly account for the knowledge dimension of human assets by elaborating on the unique attributes of knowledge and knowledge-based services as economic commodities, developing a typology of knowledge-intensive services that is linked to the asset specificity of transactions and, by describing the unique characteristics of knowledge workers that differentiate them from the standard assumptions about human nature that underlie transaction cost theory. Secondly, two separate yet complementary modes of governance for knowledge-intensive service transactions are proposed: the broader professionalization of knowledge workers - an approach grounded in institutional theory and sociology - and the advancement of the partnership as an alternative mode of governance to both market and hierarchy - an approach grounded in organization theory. Specifically, it is argued that the unique governance attributes of the profession as institution, on the one hand, and the partnership as an organizational form, on the other hand, (particularly when combined) maximize the governance benefits associated with both market and hierarchy, while minimizing the transaction costs associated with each.

In view of the adaptation of the corporate model of organizational governance in the German public university system as an effort to expedite the reform process, Chapter 3 takes a critical look at the primary mechanisms of the agency-based corporate governance model and evaluates their relative merits in the higher education context. After assessing the extent to which the agency theoretic assumptions that underlie corporate governance apply in the public university context, an alternative approach to university governance is

[3] The skills of professionals “do not by themselves pose a governance issue” (Williamson, 1981: 563)

then offered; one that is modeled after the professional service firm and, specifically, after the professional partnership. Building on the insights gleaned from Chapter 2, Chapter 3 argues that the professional partnership model of governance is not only theoretically more sound than either the corporate of the public bureaucratic models, but that it is also more consistent with the unique characteristics of the German higher education context.

Extending the theoretical foundation for the formal professionalization of more types of knowledge work and for the partnership as an organizational form as alternative governance structures for knowledge-intensive organizations and transactions in knowledge-intensive services that was developed in Chapters 2 and 3, Chapter 4 applies it to the specific case of public university governance reform in Germany. Bozeman's (1987) framework of ownership, funding and control is utilized in structuring the elaboration of two different approaches to the implementation of the partnership concept; namely, a market-based model and a hybrid organizational model, the latter reflecting certain aspects of the system of *co-determination* that uniquely characterizes corporate governance in Germany. While each model represents a stand-alone solution to the governance reform question, both would be strengthened by the formal professionalization of academia, the details of which are also discussed. Additional consideration is given to university strategy, higher education finance and the quality of education and research service performance, as they relate to the proposed governance reforms.

2 Chapter 2: The Governance of Knowledge-Intensive Services: A Transaction Cost Approach

2.1 Introduction

While transaction cost economics generally achieves its primary goal of matching discrete economic transactions with appropriate governance structures in many contexts, it falls notably short where knowledge-intensive service transactions are concerned. The current paper seeks both to elaborate this gap in transaction cost theory and to fill it by extending and improving its prescriptive power when applied to transactions involving knowledge-intensive services. To this end, the paper's chief contribution is twofold. Firstly, we extend transaction cost theory to explicitly account for the knowledge dimension of human assets by: discussing the unique attributes of knowledge and knowledge-based services as economic commodities; by developing a typology of knowledge-intensive services that is linked to the asset specificity of transactions; and, by describing the unique characteristics of knowledge workers that differentiate them from the standard assumptions about human nature that underlie transaction cost theory. Secondly, we propose the advancement of two separate yet complementary modes of governance for knowledge-intensive service transactions: the broader professionalization of knowledge workers - an approach grounded in institutional theory and sociology - and the advancement of the partnership as an alternative mode of governance to both market and hierarchy - an approach grounded in organization theory. Specifically, it is argued that the unique governance attributes of the profession as institution, on the one hand, and the partnership as an organizational form, on the other hand, (particularly when combined) maximize the governance benefits associated with both market and hierarchy, while minimizing the transaction costs associated with each.

2.2 A Brief Review of Transaction Cost Theory

The straightforward simplicity of transaction cost economics (hereafter, "TCE") is certainly one of its strengths and likely goes a long way in explaining its enduring appeal. Premised on a few basic assumptions about human nature (i.e., the condition of bounded rationality and a tendency toward opportunistic behavior) and about the nature of economic transactions (i.e., frequency, uncertainty and asset specificity), transaction cost theory has been highly successful in achieving its primary goal: the optimal matching of a discrete economic transaction with an ideal governance structure in a cost-economizing way (Williamson 1979).

Concerning the latter, transaction cost theory is based on three main governance structures: market; hierarchy (i.e., bureaucratically organized firms or public organizations); and, an intermediate hybrid form (Williamson, 1999)[4]. The three differ, respectively, in terms of their strength of incentive mechanisms, the nature of monitoring and control mechanisms, and, where private sector organizations are concerned, the contract law regime. According to Williamson, markets are characterized by a combination of "high-powered incentives with little administrative control and a legalistic dispute settling mechanism", while "hierarchy supports (internal) cooperation by combining low-powered incentives, extensive administrative control, and resolving most disputes within the firm—where the firm serves as its own court of ultimate appeal" (1999: 33). Lastly, Hybrid contracting represents an intermediate form of governance "located between market and hierarchy in all three respects" (1999: 33).

Perhaps a reflection of the period in which Williamson developed the theory, its greatest strength lies in its application to the governance of transactions involving the purchase or construction physical goods (Richter & Niewiem, 2006), as evidenced, for example, by recourse to the classic "make-or-buy" decision (Williamson, 1979; 1981). This can be attributed to the emphasis that the theory places on the asset specificity of transaction-specific investments (i.e., investment idiosyncrasy) and the resulting bilateral dependence between buyer and supplier (Riordan & Williamson, 1985; Simerly & Li, 2000; Williamson, 1991). To this end, much of the empirical work has focused on the issue of asset specificity as is relates to transactions involving tangible products, while few studies have applied TCE to transactions involving the provision of intangible goods or services, such as professional services (Richter & Niewiem, 2006; Riordan & Williamson, 1985).

The five key characteristics with which Williamson defines *asset specificity* are telling in this regard; namely, they are: "(1) site specificity, as where successive stations are located in a cheek-by-jowl relation to each other so as to economize on inventory and transportation expenses; (2) physical asset specificity, such as specialized dies that are required to produce a component; (3) human asset specificity that arises in a learning-by-doing fashion; (4) dedicated assets, which are discrete investments in general purpose plant that are made at the behest of a particular customer; and (5) brand name capital" (1989: 143). The concept has been further elaborated by Simerly and Li (2000), who explain it in terms of an asset's *redeployability*. That is, "the higher the redeployability of the asset, the lower the specificity. That is, assets such as bricks and mortar can be redeployed to a number of tasks and do not necessarily lose their intrinsic value once their original purpose has been fulfilled. On the other hand, assets with a high degree of specificity cannot be easily redeployed. Examples would include Titan rockets, 80 × 88 microprocessors, and highly specialized human knowledge (e.g., aerospace engineers)" (Simerly & Li, 2000: 36). Of particular interest here is the latter (i.e., specialized knowledge) and, specifically, Williamson's treatment of human assets in the development of transaction cost theory.

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[4] To a great extent, the theory, and subsequent empirical work, has been limited to a consideration of the market-hierarchy dichotomy (e.g., Riordan & Williamson, 1985).

Williamson describes human assets formally in terms of "(1) the degree to which they are firm-specific and (2) the ease with which productivity can be metered" (1981: 564). In general, the degree of firm-specificity is emphasized, such that the relationship between the mode of labor provision (i.e., market versus hierarchy) and a given transaction is directly correlated with the extent to which human assets exhibit firm-specific adaptations, resulting in an escalation of bilateral dependence between the supplier and the buyer of that labor (Williamson, 1979: 255-57). Similarly, the relative ease or difficulty of monitoring is related to the strengths and limitations of markets versus hierarchies in mitigating opportunistic behavior by the supplier of labor. In the organizational context (i.e., when hierarchy as the mode of labor governance prevails), he further differentiates labor within a firm as either "staff" or "production" (1981: 562).

Although the firm-specificity of human assets receives the greatest attention in the TCE literature, Williamson does mention that "human-capital investments that are transaction-specific commonly occur as well. Specialized training and learning-by-doing economies in production operations are illustrations" (1979: 240). This statement is telling, in that it illustrates two points made above. Firstly, it reflects the extent to which TCE is largely concerned with explaining observed characteristics of production-oriented transactions (and firms). Secondly, it reveals the implicit assumption underlying TCE that human assets are simply complements to physical assets in production-related transactions.

The examples that Williamson offers to illustrate his various depictions of human capital provide further evidence that his theory development generally neglects the significance and complexity of human assets in general and the knowledge dimension of human assets in particular. For example, he states that "although there are many uniquely skilled individuals (artists, athletes, researchers, administrators), unique skills are rarely of a transaction-specific kind. On the contrary, most of these individuals could move to another organization without significant productivity losses" (Williamson, 1979: 257). He even goes so far as to expressly excluded professionals such as doctors and lawyers from consideration, since their "skills do not by themselves pose a governance issue" (1981: 563). We argue here that in fact TCE can be applied to transactions in knowledge-intensive services; however, in order to do so, it must be extended in several important ways that: recognize the unique attributes of *knowledge as a commodity;* explicitly account for the *knowledge* dimension of human assets; account for the unique characteristics of knowledge workers; and, taking all of this into account, extends the scope of viable governance structures to include the broader professionalization of knowledge works and the partnership as an organizational form and governance structure. It will be argued that such an approach optimizes the governance of transactions involving knowledge-intensive services in a transaction cost-minimizing way. Each of these issues will be addressed in subsequent sections of this paper.

2.3 The *Knowledge* Dimension of Economic Transactions and Human Assets

2.3.1 Unique Attributes of Knowledge as a Commodity

Philosophers and scholars have grappled with the concept of knowledge for centuries. The current paper does not attempt to enter this arena of debate; rather, we simply follow Grant's modest approach and start with the premise that knowledge encompasses "'that which is known'" (1996b: 110). Of central concern here, however, is the commoditization of knowledge and the determination of the economic value of that knowledge (Bell, 1973).

In basic economic terms, knowledge, as a commodity, has certain characteristics that affect how it is exchanged, as well as its market value. Firstly, knowledge can be described as an intangible good, which is both non-rival and non-excludable in consumption. Similarly to public goods, which share these characteristics, knowledge is susceptible to the same market failures that are generally associated with the provision of public goods. Secondly, knowledge differs fundamentally from most other productive assets - which typically decline in value with use –in that knowledge may actually increase in value over time as, for example, its applications in new contexts are discovered. Finally, the stock of knowledge may also grow in size as new contributions are made.

Knowledge can be differentiated into numerous discreet groupings, which include practical knowledge, intellectual knowledge, pastime knowledge, spiritual knowledge and unwanted knowledge (Grant, 1996b: 110; Machlup, 1980). Broader distinctions can be made between that which is considered common knowledge and what may be considered proprietary knowledge. The former includes, for example, philosophical or scientific discoveries, such as laws of nature or facts of reality, to which the discoverer may not claim any ownership rights and may, therefore, be described as public goods (Rand, 1964). The latter may include intellectual property, such as inventions, original literary and artistic works, over which ownership rights may be claimed and enforced, as well as information about internal organizational processes and procedures. It is the existence and enforcement of intellectual property rights protection that, to some extent, overcomes the market failures that would otherwise result in disincentives for the creation of new, proprietary knowledge.

Placing a value on knowledge as an economic commodity is fraught with difficulties. As noted by Starbuck (1992: 716), "since much knowledge has disparate values in different situations, monetary measures of knowledge are elusive and undependable" and market prices obscure the value of knowledge to "intrafirm activities or for activities that are idiosyncratic to a single firm." Machlup further elaborates on this point, by explaining the unique problems related to the economic valuation of knowledge as follows:

> The value to an individual of any quantity or any tangible or intangible good is measured by what he or she would give in exchange for it - what he or she would pay for it - if he or she did not have it. This is quite simple - indeed too simple, in that

> it assumes that the individual is aware of what that good or that additional quantity of it would do for him or her. For most things this assumption is acceptable: people usually have a pretty good idea of how much an extra cup of coffee or ounce of meat per day would contribute to their happiness, but can they know this also about an extra piece of knowledge which they neither possess nor ever have possessed? They cannot know how important it might be for them, because if they knew it they would possess it. We cannot know what a piece of knowledge may be worth to us before we know what it is. Is this a logical trap from which we cannot extricate ourselves? It is not a serious one and does not cause much trouble - at least not with regard to most types of knowledge. After all, knowledge is not a homogeneous good, and the problem of its valuation is quite different for different kinds of knowledge (Machlup, 1993: 452).

Such problems are further exacerbated where so-called *credence goods* are concerned. Problems concerning credence goods arise when an expert provider of services, who is more knowledgeable about the needs of the consumer than the consumer himself is, determines the quantity and quality of service that is provided (Dulleck & Kerschbamer, 2006; Emons, 1997). As noted by Emons (1997: 107; emphasis in the original), "aggravating this special feature is the fact that even *ex post,* consumers can hardly determine the extent of the service that was required *ex ante.* It is often difficult, if not impossible, to find out whether repairs were really needed or whether necessary treatments were not performed." Many knowledge-intensive services may be characterized as credence goods and are therefore difficult to value as economic commodities. The case of credence goods casts doubt on Williamson's (1981: 563) assertion that the skills of professionals "do not by themselves pose a governance issue" and is indicative of TCE's insufficiency in elaborating the governance issues pertaining to knowledge-intensive services.

Given that the economic value of knowledge is of primary concern here, a definition of commoditized knowledge is required. Starbuck defines knowledge simply as "a stock of expertise" (1992: 716). Developed to deal specifically with the case of the professional service firm. Morris and Empson define knowledge as, "information which professionals acquire through experience and training, together with the judgment which they develop over time which enables them to deploy that information effectively in order to deliver client service" (1998: 613). We combine these two definitions in our concept of commoditized knowledge, given that the aim of the current paper is to develop a case for the partnership as an underexplored mode of governance for knowledge-intensive service transactions and bearing in mind that the partnership has historically been the preferred organizational form for the professional service firm, as an archetypal knowledge-based organization.

2.3.2 The Knowledge Dimension of Human Assets

What makes human capital most distinctive as an economic commodity is, perhaps, its multidimensionality. Individuals possess physical and intellectual attributes that are more or less suited for different purposes and which therefore determine their value in different contexts[5]. While the importance of people –and managers, in particular – as a critical resource for organizations is well-established (Finkelstein & Hambrick, 1996; Hambrick & Mason, 1984), the significance and complexity of human assets have only increased with the transition away from industrial production toward a knowledge-intensive, largely service-based economy, as has been observed in many advanced economies over the past three decades (Empson, 2001; Grant, 1996b; Hitt, Bierman, Shimizu, & Kochhar, 2001). In contrast to standard economic theory, which describes firms and transactions in terms of their capital- and labor-intensity, the rise of knowledge-intensive firms requires a more nuanced view of human capital that distinguishes it in terms of (physical) labor value and intellectual, or, knowledge value. Indeed, the central role played by human capital in achieving and sustaining competitive advantage is a key premise underlying the resource-based view of the firm (Barney, 1991; Grant, 1996a; Hitt et al., 2001) and is absolutely paramount for knowledge-based firms, which trade solely in the knowledge and expertise of their staff (Blackler, 1995: 1022; Starbuck, 1992). As mentioned above, transaction cost theory chiefly treats human assets as a secondary element of asset-specificity that complements transactions that are characterized by a high degree of physical asset intensity (i.e., manufacturing and production). Consequently, the *knowledge* dimension of human capital is largely neglected in the TCE literature.

Given the concept of knowledge we utilize here as a starting point, we argue that Williamson's definition of human asset-specificity can be extended in two important ways in order to more fully take into account the knowledge dimension of human assets. Firstly, a dimension of specificity can be added that describes the degree of domain-specific knowledge, or domain-specificity. Secondly, knowledge can be described in terms of its organization-specificity, but in a broader sense than Williamson's definition, to include knowledge not only of the employer organization (as Williamson's definition specifies), but also of the client organization.

To illustrate the first point, we adapt Parsons' (1939: 460) "specificity of function" in what we describe as the "domain-specificity" of knowledge. Following Parsons, we describe knowledge as being either high or low in domain-specificity in terms of the scope of its technically defined sphere. If we translate this into the TCE concept of asset specificity, we can describe it in terms of how readily it is deployable across a range of technically defined disciplines (Simerly & Li, 2000). We argue, therefore, that professions such as law,

[5] An individual may possess physical attributes that confer a high value on his labor as an athlete or a musician but may have weak intellectual attributes that would lead to a much lower value of his labor as a teacher or a doctor, and vice versa.

accountancy and medicine may be characterized as having a high degree of domain-specific knowledge, since such knowledge is not generally deployable across different disciplines or types of economic transactions. Parsons' uses the concept of functional specificity to underpin his concept of "professional authority" and offers the following illustrative example: "it is obvious that one does not call on the services of an engineer to deal with persistent epigastric pain, nor on a professor of Semitic languages to clarify a question about the kinship system of a tribe of Australian natives. A professional man is held to be 'an authority' only in his own field" (1939: 460).

This is complementary, though not equivalent, to Morris and Empson's concept of *codified knowledge*, which they describe as being "based in well documented and organized systems of information with a set of generalizable principles" (1998: 614) and that is not owned by a particular firm but is rather "codified and regulated by the institutions of an occupational group" (1998: 613). Management consultancy, in contrast, "cannot claim a particular body of knowledge as its own" (Gross & Kieser, 2006 cited in Richter & Niewiem, 2009: 275), and may therefore be characterized by a low degree of domain-specific knowledge and, therefore, a low degree of asset specificity of human assets.[6] While attempts at the codification of knowledge have been made by such organizations, including branding and copyright protection of service concepts developed by the firm (Morris & Empson, 1998: 615), they are nevertheless not comparable to domain-specific knowledge codified at the profession- or occupation-level. Domain specificity also applies to non-professional occupational fields, such as higher education. For example, a professor who is an expert in a particular subject must demonstrate a mastery of his field comparable to that of a professional, although the knowledge related to the subject in question (e.g., economics, biological sciences, etc.) is not codified in any formal, legal sense. This is consistent with Starbuck's definition of an expert as someone who has a formal education and experience equivalent to a doctoral degree (1992: 719). In summary, knowledge with a high degree of domain-specificity is correlated with a high degree of asset specificity.

Much domain-specific knowledge is - at least hypothetically - accessible to all. This is even the case with professional or otherwise codified knowledge. For example, knowledge of the law is not limited to qualified individuals who work in the legal professions; knowledge of the law is a public good to which every citizen and resident has a right to access and an obligation to obey. However, in practice, much time and effort (e.g., invested in education and/or apprenticeships) is required to master such knowledge, and, in the case of most professional knowledge, strict regulations circumscribe its use, such that this effectively limits the use of domain-specific knowledge (Reed, 1996; Starbuck, 1992). But while domain-specific knowledge can be accessed and utilized, to a certain extent, by non-experts, the maximum economic value and benefit of that knowledge can only be gained when it is

[6] Management consulting deals with generally deployable business techniques, as suggested by the definition offered by Kubr, as „the process of advice and assistance … on matters of business administration" (Kubr, 2002 cited in Richter & Niewiem, 2006: 1).

applied by a qualified professional or expert to the specific facts and circumstances of an *individual* client or client-organization. This distinguishes it in an important way from common knowledge, like laws of nature: gravity affects us all in exactly the same way; tax laws do not. This also leads to the observation that there may be significant differences in the value of knowledge per se and knowledge-in-use; or, the application of knowledge in a specific context. The economic value of knowledge-in-use is, therefore, highly variable and subjective, depending on its applicability to a particular person or organization and can therefore be said to have a high degree of organization-specificity[7].

This leads to the second point, the organization-specificity of knowledge. As discussed above, organization-specificity can refer either to specific knowledge of an employee's employer-organization or specific knowledge of a client organization. The former is central to TCE's treatment of human assets. Williamson's definition of human assets indicates a firm-specificity of knowledge that reflects learning-by-doing, specialized training, as well as an employee's embeddedness in the socio-organizational hierarchy (Granovetter, 1985; Williamson, 1979), which in turn results in *encultured knowledge* that is shared by all members of the organization (Blackler, 1995). This conceptualization is echoed in Morris and Empson's (1998) *collective tacit knowledge*, which results from the routines and relationships that characterize a particular organizational culture. The application of professional knowledge to the unique facts and circumstances of an individual employer-firm or client transform it from having a high degree of domain-specificity and a low degree of organization-specificity to having a high degree of both. This description characterizes the classic professions (i.e., law, accountancy and medicine).

The limited scope of the organization-specificity of human assets offered by transaction cost theory can thus be extended to encompass the extent of client-specific knowledge. Here, the range of variables may include a wide variety of knowledge, including everything from organizational institutions such as the "corporate culture", to internal business processes, trade secrets and proprietary intellectual property. Greenwood, Li, Prakash, & Deephouse (2005: 16) describe the relationship with a specific client as a "complementary specialized asset", which complements the domain-specific knowledge associated with professional services. To provide an illustrative example, Richter and Niewiem (2009) cite their own and prior research by other authors, which found that a client firm is far more likely to engage a management consultancy that has a high degree of client-specific organizational knowledge gained from prior consulting work done for the client firm than they are to engage a consultancy with which they have not done any previous business. Furthermore, client firms are more likely to engage management consultancies in solving internal organizational problems that are "brief, specialized and non-recurring" (Richter & Niewiem, 2009: 276), than to develop the required knowledge in-house, since consultancies can exploit economies of scale by pooling generalizable functional and industry knowledge that may be

[7] This is consistent with the observations made by Starbuck (1992) and Machlup (1980) about the valuation of knowledge as a commodity, as discussed in a preceding section of the paper.

deployed across numerous transactions with many different client firms. This observation is consistent with standard make-or-buy decision predictions of transaction cost theory, reflecting the relevance of both transaction frequency and transaction idiosyncrasy.

Figure 1. A Typology of Knowledge Specificity

	High Client-specificity	Low Client-specificity
High Domain-specificity	**Medicine Law Accountancy Research & Graduate education**	**Undergraduate education Computer programming**
Low Domain-specificity	**Management consulting**	**Staffing agencies Art & Antiques dealers**

In Figure 1, a typology of the knowledge dimension of human asset specificity is presented. The typology reflects the foregoing discussion and provides examples of knowledge-based services to illustrate. The classic professions have been placed in the upper right-hand quadrant, given that these professionals must combine a high degree of domain-specific knowledge with a high degree of client-specific knowledge in order to maximize the economic value of the knowledge-based services that they provide. To illustrate, it is difficult, if not impossible, to imagine a physician providing adequate medical advice to a patient without a sufficient knowledge of medicine and a good overview of a patient's medical history and current health status. Similarly, an accountant cannot provide superior tax advice if lacking in a sound understanding of tax accounting and of each client's unique financial circumstances. Management consultancies have been placed in the lower right-hand quadrant based on the observation that consultants' utilize a broad-based toolbox of knowledge, spanning numerous domains (i.e., low domain-specificity), and that the ability to make an appropriate selection of relevant knowledge and combine it with a deeper understanding of the client organization is required of them in order to successfully apply it in an economic value-adding way. Moving to the upper right-hand quadrant, the combination of a high degree of domain-specific knowledge and low client-specific knowledge characterizes, for example, academics. Here, professors are expected to be experts in their fields yet do not require specific knowledge of students qua clients in order to provide high-quality educational services. Some might take issue with this line of reasoning, arguing that the university should be viewed as the client, since it acts as an intermediary – purchasing educational services from professors and reselling them to their students. Even taking this approach, the argument still holds. A professor does not require specific knowledge of a university (as either an employer or as a client) in order to provide high-quality educational services to any and all clients. Here, clients can be generally viewed as more or less homogeneous consumers of domain-specific knowledge rather than as services resulting from the application of that knowledge. We do, however, recognize that specialization may occur but still in a relatively aggregated way (e.g., management and economics courses tailored to specific degree programs, like media management or tourism management). The main requirement, however, is a high degree of domain-specific knowledge. Lastly, we place services with a low degree of both domain-and client-specificity of knowledge in the lower left-hand quadrant. We use the example of the temporary staffing agency, which acts as intermediaries in the labor market, matching workers with general skills (e.g., secretarial skills) to vacancies at firms in a wide variety of sectors.

Based on the foregoing discussion, we argue that a high degree of domain-specificity results in governance problems like those associated with credence goods (discussed above), which require contemplation of alternative governance structures beyond the market versus hierarchy dichotomy offered by TCE. Further exacerbating this consideration is the sliding scale of client-specificity and client-coproduction of transactions that are often characteristic of many important knowledge-based services. This has the effect of escalating the bilateral dependency between the knowledge service provider and the client firm; a further factor that has important consequences for transaction governance.

In summary, the limited scope of consideration given to human assets has been identified as a weakness of transaction cost economic theory. Here, salient dimensions of human asset specificity – namely, the domain-specificity and organization-specificity of knowledge– have been identified as lacking. These dimensions have been elaborated and a resulting typology of knowledge has been offered. This extension of the transaction cost theory broadens the scope of its applicability to include the provision of knowledge-intensive services; a sector that represents a significant, and growing, part of most advanced economies. Furthermore, such an extension lays the groundwork for forging a stronger link between Williamson's concept of asset specificity and his concept of transaction idiosyncrasy for transactions in knowledge-intensive services. Before we proceed to the discussion of governance structures appropriate to transactions involving knowledge-intensive services, a final variable must first be discussed; namely, the unique attributes of knowledge workers.

2.3.3 Unique Characteristics of Knowledge Workers

Starbuck sites his case study of the manufacturer, "Garden Company" (a pseudonym), in which he identifies the technical and strategic expertise of the firm's engineers and managers as being responsible for generating "remarkable profits" by exploiting monopolistic opportunities resulting from the development of innovative products, and not attributable to the labor of the firm's production workers (1992: 715). This provides a contrast to much of the important TCE literature, which tends to focus on the latter.

As discussed above, much of the TCE literature has treated human assets as (physical) labor in the standard production function that complements the use of physical assets (i.e., plant and equipment). The value of that labor is largely determined by the extent to which it has been adapted either to a specific employer firm, to a specific type of transaction, or to both. In taking a more nuanced approach to a discussion of labor – specifically, one that deals with the knowledge dimension of human assets – it becomes clear that the generic treatment of labor and human assets by TCE is neither sufficient nor appropriate for dealing with knowledge workers.

Starbuck defines knowledge as a stock of expertise and a knowledge-intensive firm as one in which exceptional and valuable expertise predominates over commonplace knowledge and at least one third of the workforce is made up of experts (1992: 76). He defines an expert as someone who has a formal education and experience equivalent to a doctoral degree (1992: 719). Using our terminology, experts can be further characterized as people who have specialized in a sub-domain of domain-specific knowledge, reflecting years of education and training, which results in a niche of knowledge specialization. Given the barriers to entry represented by the extensive education and training, as well as, in some cases, regulated entrance or licensing exams, a niche of domain-specific knowledge can be viewed as a monopoly (May, Korczynski, & Frenkel, 2002; Reed, 1996; Starbuck, 1992)[8]. We assume a definition of knowledge workers as experts in a domain who possess a high degree of domain-specific knowledge. This definition consequently includes the traditional professions (i.e., law, accountancy, medicine, etc.) as well as non-professional occupations that require expert-level knowledge (e.g., management consultancy, academia, etc.), reflecting the convergence in characteristics ascribed to both professional and non-professional knowledge workers (Alvesson, 1993: 998). We further assume that the services rendered by experts can be considered credence goods, given the salient characteristics of expert knowledge.

The key question to be answered now is, what differentiates knowledge workers from other categories of workers? As Foss (2007) argues, assumptions about the knowledge and motivation of economic actors are crucial for any informed discussion of governance and organization, yet have not been addressed in a systematic way in the case of knowledge workers. In reviewing the literature on knowledge workers, three key characteristics have been identified: a preference for collegiality in decision making; the performance of work that is non-routine and non-standardized; and, a preference for autonomy and freedom from external constraint in the work environment (Greenwood & Empson 2003: 916; Moe 1995; von Nordenflycht 2010).

[8] According to May et al., “unlike traditional professionals, knowledge workers do not rely on conventional occupational or organizational credential systems to establish and gain economic and political advantages for their expertise. Instead, they make use of the esoteric and intangible nature of their knowledge to create market niches for themselves” (2002: 778).

2.3.3.1 Collegiality, Nature of Work and Preference for Autonomy

Collegiality in decision-making reflects the extent to which decisions in an organization are based on a flat hierarchy in which workers are active participants in key managerial decisions. Several authors confirm that the distribution of authority in knowledge-intensive firms reflects an emphasis on collegiality, peer evaluation, autonomy, informality and flexibility (Greenwood, Hinings, & Brown 1990: 733; Starbuck, 1992: 718). Lending further support, empirical research conducted by Sveiby and Simons (2002) found that a collaborative atmosphere even enhances the effectiveness of knowledge work. In the context of professional service firms, collegiality is reflected in members' "broad participation in strategic decisions, rotating executive positions and high individual autonomy in the production process" (von Nordenflycht 2007: 431).

According to Reed, knowledge workers, "specialize in complex task domains which are inherently resistant to incursions by the carriers of bureaucratic rationalization and control" (1996: 585). This relates not only to the belief in self-regulation (i.e., that only other qualified experts are able to evaluate their work and, consequently, a preference for collegiality in decision making and control), but also to the desire for autonomy in organizing and conducting their work (Hall, 1968). As explained by Hall, autonomy "involves the feeling that the practitioner ought to be able to make his own decisions without external pressures from clients, those who are not members of his profession, or from his employing organization" (1968: 93).

Finally, knowledge workers "rely on a sophisticated combination of theoretical knowledge, analytical tools and tacit or judgmental skills that are very difficult, but not impossible, to standardize, replicate and incorporate within formalized organizational routines" (Reed, 1996: 585). They are typically engaged in work that involves solving complex and unique problems - often for individual clients - by offering creative and innovative solutions, which makes bureaucratic approaches to monitoring and control difficult (Alvesson, 1993: 1000; Greenwood, Hinings, & Brown, 1990). Clients are also frequently involved in the provision of the services that they receive, leading to a coproduction of services that generally requires high investments from both parties in acquiring information about each other and building trust, both of which increase transaction costs (Richter & Niewiem, 2006; 2009). Richter and Niewiem describe this as *closeness*, which underscores the personal, relationship-intensive and idiosyncratic nature of consulting services (2006: 5; emphasis in the original).

In summary, salient distinguishing characteristics have been identified that differentiate knowledge work and knowledge workers from other categories of work and workers. These unique qualities have important implications for transaction governance, which will be discussed further in the next section.

2.4 Governance of Knowledge-Intensive Service Transactions

As the foregoing discussion indicates, many, if not most, knowledge-intensive services involve the use of expert knowledge applied in non-routine ways to non-standardized transactions that are often – but, to be sure, not always - tailored to the needs of particular clients, and extremely difficult for non-experts to govern. In addition, the nature of knowledge work and the defining characteristics of knowledge workers have important implications for the governance of transactions involving knowledge and knowledge-intensive services. Relatedly, the nature of knowledge in general and, specifically, commoditized knowledge makes it extremely difficult for non-experts to value ex ante knowledge (particularly in the form of knowledge-based services) and to determine the nature and extent of knowledge they may require. Consequently, highly efficient markets in knowledge and knowledge-intensive services do not exist in a way comparable to other commodity markets. Market efficiency is hampered by the costly information asymmetries that separate suppliers and buyers. Yet despite this fact, for many knowledge intensive services, in-house provision does not pose a superior alternative to market transacting, largely due to the costs and (in)frequency of the related transactions (e.g., of maintaining a legal department versus hiring an independent law firm when legal services are required). In such situations, a transaction cost approach, which utilizes transaction frequency, uncertainty and asset specificity in its calculus, cannot provide a clear answer. Thus, the door is open for an exploration of alternative modes of governance that deliver superior transaction governance in a cost-efficient way. As an important category of knowledge workers, professionals have a long and stable history of distinctive governance. They therefore offer insights to highly developed governance structures – both organizational and institutional - that have proven to function well in a knowledge-based organizational context.

2.4.1 Professionalization and Transaction Governance

The literature on the professions, particularly in the fields of sociology and institutionalism, has provided important insights into the unique attributes of professionals and the distinctive characteristics of professions as institutions (Alvesson, 1993, 2000; Bucher and Strauss, 1961; DiMaggio and Powell, 1983; Goode, 1957; Hall, 1968; Meyer and Rowan, 1977; Parsons, 1939; Scott, 1965; Starbuck, 1992; von Nordenflycht, 2007, 2010; Wilensky, 1964). Since our perspective focuses specifically on the governance functions of professionalization, we summarize these key insights and discuss their implications for transaction governance.

2.4.1.1 Characteristics of Professionals and Transaction Governance

In order to discuss professionals as being a distinctive group apart from other (knowledge) workers, a definition of the professions must be established on which further distinguishing characteristics can be elaborated. Wilensky (1964) defines professions in terms of the nature of the work performed and the nature of professional workers, according to the following two criteria. Firstly, "the job of the professional is *technical* - based on systematic knowledge or doctrine acquired only through long prescribed training (138; emphasis in the original). Secondly, professionals adhere to a set of *professional norms*; i.e., standards of conduct that inform their behavior vis-à-vis their clients and their colleagues. While the first characteristic overlaps with our broader definition of knowledge workers, the second characteristic can be viewed as distinguishing professionals from other knowledge workers. Thus, in addition to the characteristics common to knowledge workers discussed above (i.e., collegiality in decision-making, the nature of knowledge work, and preference for autonomy) members of recognized professions exhibit additional, unique characteristics that have important governance implications; namely, self-regulation and social control. These are manifested in the establishment and enforcement of strict requirements for entry into the profession (i.e., educational standards), the selection, training, promotion and socialization of aspiring entrants, resulting in a strong allegiance to the profession, the strict adherence to a code of ethics, and the trusteeship norm (Goode, 1957; Greenwood, Hinings, and Brown, 1990; Hall, 1968; Parsons, 1939; Scott, 1965; Starbuck, 1992; von Nordenflycht, 2007, 2010; Wilensky, 1964).

2.4.1.2 Professional Codes of Ethics

Underpinning the self-regulation and social control among members of a profession is the adherence to strict codes of professional ethics. According to Starbuck (1992: 717) "professionals' ethical codes require them to serve clients unemotionally and impersonally, without self-interest." This echoes Wilensky's (1964) discussion of professional norms, which dictate that professionals have an obligation to perform technically competent, high-quality work while adhering to a service ideal, stipulate that, when the two are at odds, "devotion to the client's interests more than personal or commercial profit should guide decisions" (Wilensky, 1964: 140). In addition, Starbuck (1992) notes that "professionals identify strongly with their professions, more strongly than with their clients or their employers. They not only observe professional standards, they believe that only members of their professions have the competence and ethics to enforce these standards" (717).

Professional codes of ethics are generally considered to be more severe than the laws and regulations with which professionals must comply, thus bestowing upon them a high status within the larger society. However, maintenance of this social standing requires credible enforcement of codes of ethics in order to sustain the legitimacy of self-regulation and shield professionals from the scrutiny of laymen[9] (Goode, 1957; Hall, 1968). According to Starbuck (1992: 717-18) "Professionals … not only observe professional standards, they believe that only members of their professions have the competence and ethics to enforce these standards. Similarly, professionals insist that outsiders cannot properly supervise their

[9] As explained by Goode (1957: 198), "in exchange for protection against the larger lay society, the professional accepts the social control of the professional community."

activities.” Given the preference for autonomy and this belief that only other expert-professionals are competent to evaluate their work, it is in the interest of professionals to comply with and mutually enforce their codes of ethics.

2.4.1.3 The Trusteeship Norm

Related to their adherence to a strong code of ethics and professional norms, professionals possess an attitudinal trait that further distinguishes professionals from other knowledge workers is their public service ethos (Hall, 1968), also referred to by von Nordenflycht (2010) as the *trusteeship norm*. The trusteeship norm encompasses the notion that “professionals have a responsibility to protect the interests of clients and/or society in general,” which lies “at the core of professional codes of ethics and is often contrasted against a “commercial” or “economic” ethos that allows unfettered pursuit of self-interest” (von Nordenflycht, 2010: 163). This echoes early work by Parsons, who contrasted the archetypal professional with the stereotypical businessman; the former as a person who is “not thought of as engaged in the pursuit of his personal profit, but in performing services to his patients or clients, or to impersonal values like the advancement of science” (1939: 458). The characterization of the businessman or homo economicus, who are assumed by transaction cost theory (and economic theory generally) to be driven by self-interest that may lead to opportunistic behavior provides a stark contrast with the public services ethos and trusteeship norm motivating the behavior of the professional. The former represents a fundamental assumption about human behavior in the economic sphere, which serves as basis for rationale in hierarchically structuring organizations – both private and public – in order to minimize the costs of monitoring and controlling opportunistic behavior. Parsons' argued that “the dominance of a business economy has seemed to justify the view that ours was an ‘acquisitive society’ in which every one was an ‘economic man’ who cared little for the interests of others. Professional men, on the other hand, have been thought of as standing above these sordid considerations, devoting their lives to ‘service’ of their fellow men” (1939: 463). Goode makes a similar argument, suggesting that, “…the highest rewards of prestige and money are most likely to be granted to the practitioners who actually live up to the professional role obligations. The practitioner who tried to live by the doctrine of *caveat emptor* might, unlike the business man, find himself expelled from his community, either informally or formally” (1957: 196).

Returning to the issue of transaction governance, codes of ethics and professional norms explicitly recognize and control for the information asymmetries inherent in most knowledge-intensive service transactions. Alluding to the specific credence goods nature of professional services, Goode explains that, “socialization and social control in the professions are made important by the peculiarly exploitative opportunities the professions enjoy. The problems brought to the professional are usually those the client cannot solve, and only the professional can solve. The client does not usually choose his professional by a measurable criterion of competence, and after the work is done, the client is not usually competent to judge if it was properly done” (1957: 196). In a similar vein, Wilensky explains that, “the client is peculiarly vulnerable; he is both in trouble and ignorant of how to help himself out of it. If he did not believe that the service ideal were operative, if he thought that the income of the professional were a commanding motive, he would be forced to approach the professional as he does a car dealer- demanding a specific result in a specific time and a guaranty of restitution should mistakes be made. He would also refuse to give confidences or reveal potentially embarrassing facts. The service ideal is the pivot around which the moral claim to professional status revolves” (1964: 140).

This proposed disinterest in the pursuit of (financial) self-interest that sets professionals apart from other economic actors has been largely ignored in the intervening eighty-four years of research and writing on organizational governance. Yet, if accepted, this premise has obvious and significant governance implications for transactions involving knowledge-intensive services, in general, and credence goods, in particular.

2.4.1.4 Selection, Admission and Socialization within the Professions

Finally, self-regulation and social control are anchored in the socialization process that aspiring entrants to a profession must undergo. Those aiming to enter a profession must meet the high educational requirements, as well as undergo extensive training during which intensive socialization occurs (Goode, 1957: 196). All of this culminates in a strong sense of allegiance to the profession. Members of professions have been described as exhibiting an esprit de corps and a sense of “being in the same boat”, which are said to be “fostered by such things as control of entry to the occupation, development of a unique mission, shared attitudes toward clients and society, and the formation of informal and formal associations” (Bucher and Strauss, 1961: 330). According to Starbuck, professionals identify more strongly with their profession than with either their clients or their employers (1992: 717), which Hall (1968: 93) refers to as “a sense of calling to the field.” As described by Goode, “typically a profession, through its association and its members, controls admission to training and requires far more education from its trainees than the containing community demands. Although the occupational behavior of members is regulated by law, *the professional community exacts a higher standard of behavior than does the law*. Both of the foregoing characteristics allow the professions to enjoy more prestige from the containing community than can other occupations. Thus, professionals stand at the apex of prestige in the occupational system” (1957: 195; emphasis added).

2.4.1.5 Professionalization as an Institution and Governance Structure

Thus far we have identified and discussed the unique attributes of professionals – both attitudinal and behavioral – that differentiate them from other labor market participants. Based on the foregoing discussion, we conclude that these attributes are clearly inconsistent with the assumptions about human behavior that underlie transaction cost theory - specifically, self-interested opportunism. Nevertheless, our critics may question the strength of our arguments and claims, despite their basis in prior research. To this end, we offer an additional argument: these attitudes and behaviors can be relied upon to consistently differentiate professionals from the archetypal homo economicus because they have become institutionalized.

As with many social science theories and constructs, there lacks a clear and uncontested definition of what constitutes an *institution*. A key figure in the field of sociology and institutional theory, Scott defines institutions as being composed of "cultural-cognitive, normative, and regulative elements that provide stability and meaning to social behavior" and have attained a high degree of resilience and legitimacy (1995: 33). Important work in sociology (see for example, Alvesson, 1993, 2000; DiMaggio and Powell, 1983; Meyer and Rowan, 1977) has discussed professions as institutions. This interest in professions as institutions has stemmed in large part from the fact that "many of the traits that make the professions sociologically interesting grow from the dimension of *community*" (Goode, 1957: 195; emphasis added).

Characteristic of each of the established professions, and a goal of each aspiring occupation, is the 'community of profession.' Each profession is a community without physical locus and, like other communities with heavy in-migration, one whose founding fathers are linked only rarely by blood with the present generation. It may nevertheless be called a community by virtue of these characteristics: (1) Its members are bound by a sense of identity. (2) Once in it, few leave, so that it is a terminal or continuing status for the most part. (3) Its members share values in common. (4) Its role definitions vis-à-vis both members and non-members are agreed upon and are the same for all members. (5) Within the areas of communal action there is a common language, which is understood only partially by outsiders. (6) The Community has power over its members. (7) Its limits are reasonably clear, though they are not physical and geographical, but social. (8) Though it does not produce the next generation biologically, it does so socially through its control over the selection of professional trainees, and through its training processes it sends these recruits through an adult socialization process (Goode, 1957: 194).

From this point of view, a professional community has its own symbolic systems, relational systems, routines, and artifacts, which support the three pillars - regulative, normative, and cultural/cognitive - of the 'profession as institution' (Scott, 1995). Powell explains the three pillars as follows: "regulative elements emphasize rule setting and sanctioning, normative elements contain an evaluative and obligatory dimension, while cultural/cognitive factors involve shared conceptions and frames through which meaning is understood" (2007: 2). According to Powell, "each of Scott's pillars offered a different rationale for legitimacy, either by virtue of being legally sanctioned, morally authorized, or culturally supported. These two key treatments of institutional mechanisms underscore that it is critical to distinguish whether an organization complies out of expedience, from a moral obligation, or because its members cannot conceive of alternative ways of acting" (2007: 2).

Table 1. A Tabular Summary of Scott's "Three Pillars of Institutions"

	Regulative	Normative	Cultural-cognitive
Basis of compliance	Expedience	Social obligation	Taken for grantedness Shared understanding
Basis of order	Regulative rules	Binding expectations	Constitutive schema
Mechanisms	Coercive	Normative	Mimetic
Logic	Instrumentality	Appropriateness	Orthodoxy
Indicators	Rules Laws Sanctions	Certification Accreditation	Common beliefs Shared logics of action
Basis of legitimacy	Legally sanctioned	Morally governed	Comprehensible Recognisable Culturally supported

Source: Adapted from Scott (2014: 60)

The institutional effects of professionalization on professionals differentiate them in important ways from non-professional knowledge workers. As explained by Wilensky, "the degree of professionalization is measured not just by the degree of success in the claim to exclusive technical competence, but also by the degree of adherence to the service ideal and its supporting norms of professional conduct" (1964: 141). Earlier work by Parsons (1939) provides a more detailed discussion. "The professional type is the institutional framework in which many of our most important social functions are carried on, notably the pursuit of science and liberal learning and its practical application in medicine, technology, law and teaching" (Parsons, 1939: 467). He elaborates further on this point as follows. "The institutional pattern governing professional activity does not, in the same sense, sanction the pursuit of self-interest as the corresponding one does in the case of business… Business men are, for instance, expected to push their financial interests by such aggressive measures as advertising. They are not expected to sell to customers regardless of the probability of their being paid, as doctors are expected to treat patients" (Parsons, 1939: 463). In Parsons' view, "success" and "achievement" are institutionally defined and differ fundamentally between business and the professions. These differences also form the institutional constraints on socially accepted and expected behavior for the members of these two distinct groups (i.e., businessmen and professionals) (Parsons, 1939: 465). As noted by Goode, "the advantages enjoyed by professionals thus rest on evaluations made by the larger society, for the professional community could not grant these advantages to itself. That is, they represent structured relations between the larger society and the professional community" (1957: 196). The fundamental conclusion that can be drawn is the following: transaction cost theory's self-interested and opportunistic homo economicus appears to be subject only to *external* regulative constraint on his behavior, whereas professionals are subject to both *external* and *internal* regulative, normative and cognitive constraints.

According to Meyer and Rowan, " …institutional rules may have effects on organizational structures and their implementation in actual technical work which are very different from the effects generated by the networks of social behavior and relationships which compose and surround a given organization" (1977: 341). This is consistent with the findings of an earlier empirical study of professional occupational groups and bureaucratic organization by Hall (1968). Hall found that certain characteristics of professionals have a significant effect on the organizations in which they work; particularly concerning the structure and governance of the organizational form. His work suggests that autonomous, self-regulating groups of professionals (e.g., lawyers and accountants, doctors and advertising executives) tend to utilize less bureaucratic organizational structures to organize themselves than groups of professionals working in either heteronomous[10] organizations or departments of larger, non-professional organizations.

We agree with the assertion that institutional rules, such as those associated with specific professions, affect organizational structures. We also acknowledge that, despite acceptance of this assertion, numerous variations of professional organization may be observed in practice (e.g., as proposed by Scott[7]). However, by taking a transaction cost theoretic approach, we suggest that a cost-minimizing and governance-optimizing organizational form ought to be selected for governance of transactions involving knowledge-intensive services. On that basis, we make a case for the partnership as the ideal organizational structure, arguing that it maximizes the governance effects related to the professions as well as those associated with the organizational structure as such.

2.5 The Partnership as an Organizational Form

In the management and organization studies literature, the corporation, as both an institution and an organizational form, has by now been thoroughly studied. Indeed, in much of the literature on public sector management reform, the corporation and corporate-style management and governance practices are the default models to which reformers aspire. Despite the recognized weaknesses in the corporate model, and the difficulties with applying this model in other institutional environments (e.g., in the public sector), this tendency persists. Remarkably neglected in all of these literatures is a serious consideration

[10] Hall (1968) utilizes Scott's (1965) typology of three professional organizational structures: autonomous; heteronomous; and, departmental. An autonomous organization of professionals is characterized by self-regulation and collegiality. It is not subject to external or administrative control and the professionals in the organization determine the organizational structure themselves. In heteronomous organizations, professional employees are subject to external regulation and the organizational form is usually prescribed – often by law- by external forces. In the third case, professionals work in a department that is part of a larger, typically hierarchically structured organization, such as legal or research departments (Hall, 1968: 104).

of the partnership as a unique organizational form with distinctive managerial and governance attributes that distinguish it – favorably – from the corporation.

In its most basic construction, a partnership is created by a contractual agreement between two or more individuals who enter into a business arrangement whereby each party agrees to contribute some amount of capital and labor, while sharing proportionately in the profits and losses resulting from the operation of the business. In contrast to the limited liability enjoyed by shareholders, owing to the fact that the corporation is a legally separate entity from its owners, the partnership is not a legal entity separate from its partner-owners. Consequently, each partner bears unlimited personal liability for the debts of the partnership, even if they were incurred by another partner (on behalf of the partnership).[11] Furthermore, "a partner is an owner of a firm, is involved in its overall management, and is a key production worker" (Greenwood, Hinings, and Brown, 1990: 730). Thus, a partnership unifies ownership, management and operations (Greenwood, Hinings, and Brown 1990; Ribstein 2009; von Nordenflycht 2007). This distinguishes it markedly from the corporation, which is characterized by a clear separation of ownership, management and operations. This has important implications for the governance of transactions both within the organization as well as between the organization and third parties, particularly customers.

The partnership form is also strongly linked to the professions, which may account for its historical prevalence among professional services, such as law and accountancy firms (Ribstein, 2009; von Nordenflycht, 2007). In many respects, it reflects the defining institutional features of the professions. Firstly, it reflects the belief held by most professionals that non-professionals are not fit to monitor and control the work of professionals, therefore resulting in a preference for mutual peer monitoring of professionals by professionals. Secondly, it reflects the preference for autonomy in conducting work and the preference for collegiality in decision-making at the managerial-level, given the relative equality and status of the partners. Thirdly, it is consistent with the trusteeship norm. That is, the view held by professionals that commercial interests – both own and those of clients – should be secondary to compliance with professional standards and codes of ethics.[12] This is an important contrast to the corporate form, in which a

[11] The laws of most jurisdictions do allow some relief from full personal liability in the case of the "limited liability partnership." However, in order to be exempted from full liability, a partner must be able to prove that she was unaware of and not involved in any wrongdoing or negligence perpetrated by the other partner(s) (Greenwood & Empson 2003: 915).

[12] According to von Nordenflycht,"one managerial implication of this trusteeship norm is the existence of normative and coercive prohibitions against organizational forms that are perceived to threaten trusteeship behavior. A primary example is a resistance to having nonprofessionals, especially commercially oriented nonprofessionals (such as investors), involved in the ownership and governance of professional firms (von Nordenflycht, 2008). This is intended to prevent the introduction of pressures that might compromise the interests of clients. In some cases the professional code expressly prohibits nonprofessionals from sharing ownership in professional firms. In other cases, such as hospitals, organizing as a nonprofit is another way to minimize commercially oriented governance (Hansmann, 1996)" (2010: 163).

separation of ownership control has led to the goal of shareholder value maximization and performance-based financial incentives for employees to narrowly pursue that goal. Lastly, and relatedly, the tournament system of promotion to partner that is frequently utilized by professional partnerships provides incentives for professional staff who aspire to become a partner to work towards the best interest of the partnership, rather than pursuing their own individual financial interests.

2.5.1 The Partnership as a Mode of Transaction Governance

The partnership, as an organizational form, possesses a number of governance features that distinguish it favorably from both market and hierarchy for the governance of knowledge workers and professionals and knowledge workers and make it particularly suited for the governance of knowledge-intensive service transactions that are rendered to non-expert clients.

Firstly, the unlimited personal liability to which partners are exposed reinforces mutual peer monitoring and militates against self-interested opportunistic behavior. This is consistent with the preference for collegiality and the belief that only other experts or professionals are able to accurately and critically evaluate the non-routine, non-standardized work in which knowledge workers are engaged. It is also consistent with the self-regulation of the professions, which depend on strict compliance with own codes of ethics and professional norms for sustaining their elevated social status and maintaining their reputational capital.

From the perspective of non-expert third parties – most notably clients – this goes a long way toward reducing the risks associated with the information asymmetries that complicate market contracting and lead to high transaction costs. In this way, the partnership optimizes transaction governance while significantly reducing transaction costs. Where credence goods transactions are concerned, we expect the differential to be even greater.

Secondly, the unification of ownership, management and control, combined with the tournament system of promotion to partner create incentives that promote knowledge creation and knowledge sharing by all members of a partnership –both among partners and non-partner professional staff. Both Foss (2007) and Hackett (2000) discuss the problems of encountered by many knowledge-based organizations and identify a tendency among knowledge workers in traditional private and public bureaucratic organizations to hoard knowledge, which typically results from corporate-style performance-based incentives, as one of the most serious obstacles that such organizations must overcome. Sharing of knowledge and other resources (especially those that contribute to fixed costs), can allow knowledge workers who work together in a partnership context to realize economies of scale and scope in the services they offer, which leads to both lower production and transaction costs than would be realizable via either hierarchy (which discourages knowledge sharing) or market-based transactions between individual self-employed experts working by themselves (where knowledge-sharing is precluded due to competition).

Finally, the partnership is highly consistent with the professional allegiance to a profession. It is also more consistent with related professional norms - such as the trusteeship norm and the service ideal - than either market contracting or hierarchical organization. As noted by Goode (1957: 197), "the professional who is also a bureaucrat becomes less directly dependent on the professional community for his career advancement, so that the ordinary sanctions of that community may have less impact." Subsequent empirical research by Hall (1968) lends further support to the claim that a bureaucratic organizational structure (i.e., akin to Williamson's "hierarchy") is incompatible with a professionalized workforce. This is echoed by von Nordenflycht (2007), who observes that "both economic and sociological theorists argue that a strong culture that fosters cooperation and intrinsic motivation is a key source of advantage for PSFs [professional service firms], because professionals' portable skills render formal authority and traditional incentive systems less effective" (p. 431-432). The formal processes and hierarchical control structures associated with corporate governance and traditional public administration are therefore likely to conflict with informal processes and 'collegial controls' that underlie the governance of professional partnerships (Moe 1995; von Nordenflycht 2007: 432). Taken together with the unique attributes of knowledge workers and professionals – i.e., a preference for self-regulation, autonomy in conducting work, the non-routine, non-standardized nature of work performed (and the difficulty faced by non-experts in monitoring and controlling work), and the preference for collegiality in decision-making, a hierarchically structured organization, like a traditional bureaucracy, may well have the effect of undermining the desirable governance features associated with the institutional aspects of professionalization.

2.6 Summary and Conclusions

Based on the foregoing discussion, we argue that partnerships contribute to lower transaction costs than can be achieved by either markets or hierarchies in the governance of knowledge-intensive service transactions for a number of reasons. Firstly, lower information asymmetries between expert-partners reduce the probability that opportunistic behavior can be successfully pursued. Secondly, shared liability, profit participation, and the preference for collegiality in decision-making result in a highly effective system of internal mutual peer monitoring. This results in lower transaction costs than the more costly and less effective option of market-based contracting, due to the inherent difficulty faced by non-experts in monitoring and controlling transactions in knowledge-intensive, expert services. Internal governance of experts by experts should also be less costly and more effective than traditional, hierarchical internal firm governance by non-expert "professional" managers, particularly where operations are characterized by the provision of non-standardized, non-routine knowledge-intensive services. In summary, we argue that the partnership is an organizational form that is more consistent with institutional features and governance mechanisms of professionalization. When combined, the complementarities in the two modes of governance are expected to create synergies that optimize the governance effects of each and minimize total transaction (and production) costs.

For knowledge-intensive services having a high degree of domain-specificity combined with a low degree of client-specificity of knowledge, the governance features of the partnership should provide superior monitoring and control functions while minimizing transaction costs to clients. Furthermore, as the degree of client-specificity increases and bilateral dependence escalates, the need for professionalization increases. For such transactions (e.g., those involving credence goods), partnership coupled with professionalization is expected to optimize transaction governance while minimizing transaction costs.

No added benefit accruing from professionalization are expected for knowledge-intensive services having a low degree of domain-specificity. The resulting services suffer less from the opportunism posed by credence goods and are therefore easier for non-expert clients (in the case of market-based transactions) and non-expert managers (in the case of in-house provision) to monitor and control. However, for transactions characterized by a high degree of client-specificity (i.e., management consulting), it is argued that the partnership offers better and cheaper governance when compared with either the market or hierarchy, given the benefits conveyed to clients (i.e., lower contacting costs) resulting from the benefits of mutual peer monitoring within the partnership.

The aim of the current paper was to extend transaction cost theory to make it more readily applicable to transactions involving knowledge-intensive services. To this end, some gaps in the theory concerning human assets and, specifically, the unique characteristics of knowledge and knowledge workers in the modern economy were identified. On this basis, two alternative, yet complementary, governance structures for the governance of transactions involving knowledge-intensive services are offered: the professionalization of certain knowledge workers (based on our typology of the knowledge dimension of human assets) and the partnership as an organizational form. When combined, autonomous knowledge workers organized as a professional partnership offer an institutionally coherent solution to the governance problems unique to knowledge-intensive services. It has been argued that these combined modes of governance can improve the governance of transactions in knowledge-intensive services while minimizing the related transaction costs. To be sure, the current text is theoretical and represents a first step, albeit one that is intended to stimulate further theoretical and empirical work on this topic. Lastly, this chapter seeks to contribute to the dialogue on public-sector reform, which has traditionally centered on the adoption of corporate-style management and governance practices, with limited success. To this end, opportunities are foreseen to apply the approach offered here in the context of higher education reform and the reform of public research institutions, where public sector reformers are looking to the private sector for models of management and governance.

3 The Professional Partnership: An Alternative Model for Public University Governance Reform in Germany

3.1 Introduction

In an effort to expedite the process of reforming university funding and governance, certain features of the corporate model of organizational governance are being introduced into the German public university system. In light of this transition - away from the traditional public administration model and toward the corporate model of governance - the relative merits of the corporate model are critically discussed in the higher education context. An alternative approach to university governance is then offered; one that is modeled after the professional service firm and, specifically, after the professional partnership. The chief contribution of the paper is the proposal of a novel model of university governance that combines the most promising governance features of the professional partnership and professional service firm while, at the same time, reflecting the unique characteristics of the German higher education context. In line with Binderkrantz and Christensen, the current paper takes the position that a transfer of 'lessons learned' from the private sector to the public sector is possible in the domain of organizational governance; however, as stated by those authors, "it presumes careful analysis of when it is defensible and what the lesson is" (2012: 46).

3.2 New Public Management and its Impact on German Higher Education

According to Pollitt and Bouckaert, "public management reform consists of deliberate changes to the structures and processes of public sector organizations with the objective of getting them (in some sense) to run better" (2005: 8).More specifically, proponents of the 'New Public Management' (hereafter, NPM) approach to reform have advocated the adoption of private sector management techniques by public sector organizations in order to improve operational efficiency and organizational effectiveness. In broad terms, proponents of NPM advocate the use of private sector management techniques as a way to change the bureaucratic culture of public sector organizations by stimulating public servants to think and act more like their peers working in the private sector. Although the details of specific policies may differ between countries, some general characteristics of NPM can be identified (Hood, 1991; Kaboolian, 1998).

Firstly, there can be observed a paradigm shift away from traditional 'public administration', which emphasizes *inputs* and bureaucratic *processes*, toward an *output* and *outcome* based management approach (Dunleavy & Hood, 1994; Mathiasen, 1999: 102; Pollitt, 2001: 474). Parallel to this process, NPM advocates for the treatment of the users of public services as customers and calls for a greater responsiveness to their needs (Bovaird & Loeffler, 2009). Secondly, a performance-oriented approach to public management (as opposed to public administration) is preferred in order to provide a clearer link between resources and results (Holmes & Shand, 1995: 560). Complementary to this approach is the increasing use of performance indicators, coupled with performance-based incentive schemes, to motivate public managers (Bovaird & Loeffler, 2009). Thirdly, there has been an effort to transform organizational structures from large, hierarchical bureaucracies toward leaner, flatter forms (Pollitt, 2001; Pollitt & Bouckaert, 2005). This is in line with a general trend toward more flexible and devolved financial and personnel management, characterized by "greater decentralization of authority and responsibility from central to lower levels of government" (Bovaird & Loeffler, 2009: 19). In addition, an attempt has been made to mimic market forces within and between public organizations (Pettersen, 1999). Fourthly, more use is being made of contracting with private sector firms, as well as the initiation of public-private partnerships in the provision of public services. Finally, some government services have been fully privatized.

In the context of German higher education, the NPM movement began in earnest in the mid-1990s (Huefner, 2003; Kuepper, 2003; Schimank, 2005). According to Schimank, "at the core of NPM lies the principle of increased competition among and within universities – competition for resources, students and national as well as international standing" (2005: 365). In order to stimulate competition, reformers have attempted to introduce market mechanisms (such as tuition fees and a new salary structure for professors), external monitoring and control based on output-oriented indicators, such as quality (in the form of new accreditation bodies) and the number of graduates from a given institution, and the allocation of public finance based on a variety of institutional performance indicators (Huefner, 2003). While decision making remains largely centralized at the level of state government[13], greater formal authority is slowly being devolved to the university-level and, specifically, delegated to university presidents and faculty deans.

This movement toward decentralization should, however, not be mistaken for progress in the reform process. In the past, and informed by the Humboldtian tradition of "academic freedom", decision making authority was even further devolved and decentralized to the level of the individual professors (Huefner, 2003; Schimank, 2005). The process of 're-decentralization' has, ironically perhaps, faced the greatest opposition from academics. Specifically, the lack of institutional legitimacy of market-oriented reforms within the academic community, coupled with the job security enjoyed by professors[14], both imply that the process of reform has been slow and very few significant changes have actually been achieved thus far. Thus, the coupling of a market-orientation with the decentralization of power, both to and within the university, has impeded the progress of reform.

[13] It should be noted that legal and regulatory authority over higher education policy and finance in Germany lies with individual states and not with the federal government. Therefore, a considerable variation in the extent of the reforms implemented can be observed between states, despite a historically high degree of policy coordination among states via bodies such as the Standing Conference of Ministers of Higher Education (KMK) and the Rectors' Conference (HRK).

[14] In Germany, professors are not only protected by tenure but also enjoy civil servant status. This implies that, short of committing a serious criminal offence, they cannot be fired (Schimank, 2005: 373).

While it is generally agreed that the NPM movement began in most industrialized countries in the early 1980s, one might wonder why it was introduced relatively late in the German higher education sector. Perhaps the German academic community was shielded from reform pressures longer than other areas of the public sector thanks to the high social status accorded to academics and the public trust they historically enjoyed. However, as discussed below, the tremendous growth in student numbers during the postwar period, coupled with state budgetary constraints, meant that the academic community eventually found itself under the scrutiny of public sector reformers.

Initially, high growth in student enrollment in higher education was matched by an increase in the number of academic staff. For example, when the number of students more than doubled between the mid-1960s and mid-1970s, state governments expanded institutional funding, enabling an increase in the number of professorships and scientific staff that kept pace with the increase in student numbers. When the number of students again doubled between 1970 and 1990, limited financial and other resources provided by the states meant that the 100 percent increase in the number of students was accompanied by a mere 16 percent increase in the number of academic staff (Huefner, 2003: 147). According to Schimank the first phase of high growth was associated with a general decline in the quality of the academic staff, since the sudden increase in demand for highly qualified professors was not matched by a corresponding increase in supply (2005: 371)[15]. The second phase of high growth was associated with an overall decline in the quality of teaching and scientific performance, which could be attributed to a dramatically increased workload. The ratio of students to academic staff increased from 13:1 to 24:1, with some mandatory lectures being visited by as many as 1,000 students at any given time (Huefner, 2003; Kuepper, 2003). While some might have viewed this as economically efficient, it was generally concluded that the large-scale lecture format and the relative quality of teaching were not suitable to ensure high-level, internationally competitive educational outcomes (Kuepper, 2003: 78). Furthermore, insufficient public funds resulted in a deterioration of university buildings and equipment, which has contributed to a further lag in international competitiveness. Lastly, the Bologna process, which aims to harmonize higher education within Europe, has created external pressure on German universities to make reforms. For example, degree programs have had to be revised in order to make them comparable with degrees awarded by foreign universities (i.e., a transformation of the single German *Diplom* degree into separate Bachelor and Master degrees), as well as shortening the time it takes to earn a degree – from seven years to earn a *Diplom* to three years for a Bachelor degree (Huefner, 2003: 145). There is also further pressure to establish independent accreditation bodies, with the goal of promoting quality and transparency within and across institutions offering the same or similar degrees.

[15] Recruitment of professors was largely limited to the domestic labor market. Today, recruitment of foreign staff is more common in German higher education.

In an effort to expedite the reform process, certain features of the corporate model of organizational governance are being introduced to the German university system, which is viewed as consistent with the NPM reform movement. A brief review of the literature follows, which assesses the relative strengths and weaknesses of the corporate model of governance in general terms, and, more specifically, evaluates the appropriateness of this model for use in the context of public university reform in Germany.

3.3 Making Sense of Organizational Governance: The Agency Approach

3.3.1 Agency Theory and the Modern Corporation

While agency theory is applicable in a variety of contexts (Harris & Raviv, 1978), it has made important contributions to the field of organization studies. In particular, agency theory has been applied to the problems inherent in the separation of ownership and control of large, publicly traded firms that are characterized by diffuse and widely dispersed ownership (Berle & Means, 1932; Eisenhardt, 1989; Fama, 1980; Fama & Jensen, 1983; Jensen & Meckling, 1976; Schleifer & Vishny, 1997). An agency relationship arises when one party (the agent) enters into an agreement with another party (the principal) to act on the principal's behalf. Agency problems in organizations may arise when agents are assigned decision-making rights on behalf of principals but neither bear the residual risks nor enjoy the residual benefits of their decisions (Fama & Jensen, 1983: 304). According Eisenhardt, agency theory is concerned with resolving the agency problems that arise when „the desires or goals of the principal and agent conflict" and when „it is difficult or expensive for the principal to verify what the agent is actually doing" (1989: 58).

In the case of the firm, managers (agents) are employed to operate the firm on behalf of the shareholders (principals). The separation of decision management and decision control is assumed to aggravate conflicts of interest between agents and the principals. In an influential article, Jensen and Meckling state that, "since the relationship between the stockholders and manager of a corporation fit the definition of a pure agency relationship it should be no surprise to discover that the issues associated with the 'separation of ownership and control' in the modern diffuse ownership corporation are intimately associated with the general problem of agency" (1976: 309). Agency problems, in this context, may manifest in a variety of ways but generally result from information asymmetries that can be exploited by management.[16] For example, managers may seek to increase their own power, often referred to as "empire building", by expanding the scale and scope of the firm in an inefficient way that is detrimental to the interests of the owners (Hart & Moore, 1995; Moerland, 1995; Schleifer & Vishny, 1989, 1997). In a similar vein, managers may be reluctant to distribute excess cash to owners in the form of dividends, preferring to either spend the cash on expanding the firm or simply enjoying control over

[16] Expressed in formal terms, the two most-studied agency problems are those of moral hazard and adverse selection. A detailed discussion can be found in Eisenhardt (1989: 61).

the excess liquidity (Jensen, 1986; Schleifer & Vishny, 1989, 1997).[17] Indeed, Kochhar (1996) views the crux of the conflict between owners and management as one over control of free cash flow, as was first proposed by Jensen (1986).[18] Principals enter into contracts with agents with the goal of minimizing the *agency costs* associated with these potential conflicts of interests. Agency costs include "the costs of structuring, monitoring and bonding a set of contracts among agents with conflicting interests" as well as "the value of output lost because the costs of full enforcement of contracts exceed the benefits" (Jensen & Meckling, 1979; Fama & Jensen, 1983: 304). Principals seek to monitor and control either an agents' actual behavior or the outcome of the behavior by employing different types of governance mechanisms (Eisenhardt, 1989). Consequently, the link between equity finance and firm strategy can be viewed as an agency problem between shareholders and managers, which can be resolved by the use of appropriate governance structures and instruments.

3.3.2 Agency Theory and Public Governance

The design of governance structures and instruments in the corporate model of governance is premised on the identification of a clear agency relationship between shareholders and managers. The application of agency theory to the public sector context is less straightforward than in the corporate context for a number of reasons. Firstly, it is difficult to define a clear and uncontestable principal-agent relationship. Secondly, and relatedly, responsibilities for decision management and decision control are often spread diffusely over multiple political and administrative hierarchies. This can be attributed to the fact that decision making on any given policy issue is often spread over different branches and levels of government, while execution of policy may spread over one or more public agencies and organizations. As argued by Moe, governance of public sector agencies and organizations is characterized as having a two-tiered structure, where "one tier is the internal hierarchy of the agency, the other is the political control structure linking it to politicians and [interest] groups" (1995: 122). This is further complicated by the potential multiplicity of possible principals and agents. Consider that a given politician may represent multiple constituencies who are characterized as having competing interests. This implies that the politician as agent would ultimately have to favor the interests of one group of constituents at the expense of others, implying a subjective prioritization of the interests of her various constituencies. However, even if a given politician has a constituency with fully homogeneous interests, she must share decision making with other politician-agents, whose constituents' interests may compete with those of hers. Thus, the problem of multiple agents with multiple groups of principals who have heterogeneous and competing interests may arise. This "multiprincipal"

[17] The tendency to invest in manager-specific assets to shield the incumbent manager from replacement by a successor is dealt with specifically by Schleifer and Vishny (1989).

[18] The implication here is that equity investors have a greater interest in the cash benefits of ownership that accrue to them in the form of cash dividend payments, whereas creditors are more concerned with the liquidation value of non-current assets, which serve as collateral to secure debt obligations (Williamson, 1988: 586).

or "common agency" problem in particular distinguishes the public from the private sector, in which it is "the rule rather than the exception" (Dixit, 2002: 709).

3.3.3 From the Boardroom to the Ivory Tower: A Seamless Transfer?

3.3.3.1 The Board of Directors

Eisenhardt (1989) describes governance mechanisms aimed at mitigating agency problems as being either behavior-oriented or outcome-oriented in their design. Behavior-oriented governance mechanisms, such as hierarchical control within an organization, may be utilized when the behavior of agents may be easily observed, monitored and controlled. Given the separation of ownership and control, this function is delegated to members of the firm's board of directors (hereafter referred to as "the board"), who are elected by the shareholder-principals.[19] The function of the board therefore is to monitor and control top management on behalf of shareholders, thereby ensuring that manager-agents fulfill their fiduciary obligation to their shareholder-principals (Finkelstein & D'Aveni, 1994). The board pursues its monitoring and control mandate through structural arrangements, such as the design of executive compensation plans, and through procedural arrangements, such as the hiring and firing of top executives (Walsh & Seward, 1990: 427).

A clear trend toward the adoption of a corporate model of university governance can be observed in Germany. Firstly, executive power is increasingly being transferred from the state to the presidents of individual universities, thereby granting them managerial authority comparable to that of the CEO and CFO, respectively, of a firm. Secondly, the adoption of a dual board structure is being tested in some German universities. Comparable to the executive board of a corporation is an academic senate, comprised by members of the academic staff and, comparable to a supervisory board, is a board (the *Hochschulrat*) composed of outside directors including state politicians, business executives, and trade union representatives (Huefner, 2003). Lastly, and despite the general trend toward the corporate model as described above, the reforms that have taken place thus far at German universities implicitly treat the professors as agents and places top university managers in the role of principals, which is not entirely consistent with the corporate model of governance.

Several factors have been found to hinder the optimal functioning of the board as a governance structure in the corporate context. Firstly, there is the simple fact that boards convene infrequently. This preempts the ability of the board to effectively and consistently

[19] Firms may have a unitary board structure, with a membership comprised of executive directors (including members of the firm's top management) and non-executive members, who are recruited from outside the firm in order to ensure independence, or a dual board structure, with an executive board composed exclusively of members of top management and a separate supervisory board, whose members are typically elected by shareholders and employees.

monitor the behavior of managers on an ongoing basis. Secondly, many non-executive board members may lack the specific industry and/or market (product, geographic) knowledge necessary to objectively and critically evaluate the decisions – especially strategic decisions – of top management. This problem is likely to increases as the size and complexity of the firm increases; highly diversified firms and firms that are active in many geographic markets are especially vulnerable. Thirdly, it is often the case that one individual is a member of several boards. While she may be an expert, and therefore not suffer from the deficiencies described above in the second point, she may nevertheless struggle to manage the amount of information required to effectively monitor and control the management of numerous firms. Fourthly, it is not uncommon for the CEO to also hold the position of chairman of the board. This dual role of the CEO, coupled with the presence of other top executives on the board, diminishes the overall independence and objectivity of the board. This can lead to "board capture", whereby executives exploit their proximity to and personal relationships with non-executive board members.[20] This may include influencing important decisions to their own advantage, concerning, for example, firm strategy and their own compensation package (Bebchuk & Fried, 2003; Hall, 2003; Holmstrom & Kaplan, 2003; Thomas, 2004). Relatedly, executives can exploit information asymmetries arising from their own insider knowledge and expertise vis-à-vis less knowledgeable non-executive board members. Finally, the monitoring and controlling of management by widely dispersed individual shareholders is costly and prone to a collective action problem (Easterbrook, 1984; Soskice, 1997) and is further exacerbated by the fact that no single shareholder has a sufficiently large share of voting rights to directly elect a member to the board, since individual shareholders generally own a relatively small proportion of the total number of shares of common stock issued and outstanding.[21] In addition to, and largely because of these weaknesses, the board, as a governance structure, entails high agency costs. In summary, the costs of having a board of directors are quite high but the related benefits may be quite low, which, taken together, may yield a net negative benefit to individual shareholders.

To the extent that a university possesses these 'high risk' organizational characteristics, it can be expected to suffer from the same governance weaknesses with which they are associated in the corporate context. For example, a unique aspect of German university governance that makes it especially vulnerable to the 'board capture' problem is the fact that presidents are generally professors who have been elected by their fellow professors to

[20] The board capture hypothesis is based on the observation that board members are "frequently nominated … by the company's executives and receive large fees and benefits (in amounts determined largely by those same executives) for their services" (Thomas, 2004: 1189-1190).

[21] As Soskice argues, the coordination of monitoring and controlling of management (and, in particular, gaining access to inside information to which management is usually only privy) among widely dispersed owners is costly and is subject to the collective action problem. That is, "if any shareholder carries out satisfactory monitoring and credibly reveals it publicly, it will pay the other shareholders to free-ride" (1997: 85).

serve a managerial and supervisory role similar to the dual role assumed by a CEO when she is also elected as chairman of the board of directors. This may prove problematic, from a governance perspective, for a number of reasons. As a former professor who is likely to return to her academic position once her term as president is over, a president is much more likely to sympathize with her former colleagues (i.e., the other professors), whom she is meant to manage and monitor, than she is to sympathize with the broader public (i.e., the principals), whose interests she is meant to represent. Furthermore, a president may be reluctant to support a reform agenda that is unpopular with professors, fearing social rejection and reprisal from her colleagues when she returns to her academic post. Finally, she may be further biased in her willingness to enact meaningful reforms that are unpopular with professors since she, too, will have to comply with them when she returns to her academic post. Consequently, the introduction of board-like governance structures in German public universities are not only likely to suffer from the same problems that undermine the proper function of corporate boards, but are also likely to suffer from a further set of weaknesses unique to the university context.

3.3.3.2 The Use of Performance Indicators

When behavior-oriented approaches to governance, such as reliance on the board, prove insufficient, principals must rely on outcome-oriented forms of governance. Rather than directly monitoring the behavior of agents, outcome-oriented governance mechanisms monitor and control the *results* of agent behavior. The formulation of measures with which to evaluate results are the driving force behind the use of performance indicators, performance-based incentive schemes and the information requirements necessary to support the use of outcome-oriented governance. Thus, stakeholders (primarily owners or potential owners) evaluate management performance using indicators that reflect their own interests vis-à-vis the firm.

The use of performance indicators as a means of governance by stakeholders external to the firm is complemented by the use of responsibility accounting within the firm and the obligation to publish financial and other information about the firm at regular intervals for external stakeholders. In the corporate context, management accounting techniques are utilized that link internal performance measures with external financial reporting requirements. This approach offers several advantages. Firstly, it enables the use of responsibility accounting within the firm, a technique that holds a manager accountable only for those costs and revenues over which she has direct influence. Secondly, it complements the use of performance-based pay and similar incentive schemes. Thirdly, it provides a degree of transparency and objectivity that allows shareholders to evaluate firm performance and, therefore, management's achievement of operational and strategic goals. Similarly, it allows for firm performance to be benchmarked against that of key competitors and industry leaders. Most importantly, performance indicators reflect market-based outcomes that represent an aggregation of the sentiments of investors and consumers about firm strategy and managerial performance.

In contrast, public organizations are primarily concerned with issues such as equal access to and the affordability of services offered, rather than organizational profitability, liquidity and solvency. This has traditionally been the case concerning access to university education in Germany. Unfortunately, such goals are often difficult to quantify and objectively measure. This problem of goal ambiguity distinguishes the public sector from the private sector (Boyne, 2002; Chen, 2012; Fottler, 1981; Rainey & Bozeman, 2000).[22]

It is widely accepted in the public management literature that public sector managers must grapple with "vague, hard-to-measure, multiple, and conflicting goals" (Rainey & Bozeman, 2000: 452) that are "derived from the value-laden nature of public service" (Chen, 2012: 440). Consequently, there is no standardized or otherwise 'common' toolbox of performance management indicators used in the public sector that is comparable to the corporate sector. To the extent that public sector performance goals can be objectively quantified and measured (i.e., improving operational efficiency by lowering costs), the setting of performance goals is often arbitrary, since there are often no comparable market data against which performance can be benchmarked. Earlier work in the comparative study of public and private management practices has attributed the traditional orientation toward input planning to the difficulty of measuring outputs of public sector organizations (see Fottler, 1981, for a review of the literature).

In line with the general NPM movement, public finance of German universities is shifting away from an input-oriented system of budgeting toward an output and performance-oriented system of funding allocation. As discussed above, closer attention is increasingly being paid to key performance indicators, such as the size of enrollment, the number of graduates at each level of education (i.e., undergraduate, graduate and doctoral), the average duration of studies, the number of scientific staff, and the ability to attract third-party funding for research. However, it should be noted that these goals, and their relative importance, are determined by state-level politicians and education ministries and not set by the individual universities. This is consistent with the use of performance indicators in the corporate context, to the extent that key stakeholders (namely, owners) determine organizational goals that are generally aligned with their own interests. To the extent that authority is shared with individual universities, it is limited to the involvement of top managers (i.e., the rector and chancellor), who, like managers of highly diversified conglomerates, may lack the power to exert much meaningful influence on overall organizational performance.[23] Thus, key performance indicators used to assess teaching and research performance are generally defined by non-academic administrators and politicians;

[22] For example, Fottler (1981) attributes this to "conflicting political pressures from various constituencies" (5).

[23] Since the majority of public universities are large and offer a numerous and diverse areas of study (spanning the humanities, the social sciences, physical and biological sciences, and so on), a comparison can be made with a highly diversified conglomerate firm.

in other words, they are generally not defined by academic or other scientific staff that have direct experience with and responsibility for their execution and realization. Furthermore, the weighting assigned to each performance criteria in the funding allocation process reflects the relative importance placed on each indicator by the state. In addition, differences may be observed between states, adding further complexity to the task of making comparisons between universities located in different states.

3.3.3.3 Performance-based Compensation

In order to provide managers with an adequate incentive to achieve the desired performance goals, their compensation may be fully or partially linked to their performance. In line with the paradigm shift in corporate finance that took place in the 1980s, equity-based performance pay has increasingly been viewed as an appropriate incentive with which to align the interests of managers and shareholders. Characteristic of this approach is the disproportionate use of firm stock and stock options, in lieu of cash salary and bonuses, in executive compensation packages (Hall & Liebman, 1998: 654). The rationale is simple: if managers *are* shareholders, then they will think and act like shareholders. This new approach to the design of performance-based pay was thought to be a superior means with which to motivate managers to work in earnest toward the goal of maximizing firm value and shareholder wealth (Bushman & Smith, 2001; Hall, 2003; Heath & Norman, 2004).[24] In addition, it was thought to provide a clear goal for management and, at the same time, a clear metric (i.e., share price) for the evaluation of executive performance, thus ensuring a transparent and consistent accountability and control arrangement between executives, the board and shareholders.

Although equity-based pay has been widely adopted among publicly traded firms (Conyon, 2006) and median executive compensation grew 600% between 1980 and 2000[25] as a result, its direct impact on firm performance has yielded mixed results (Bebchuk & Fried, 2004; Bushman & Smith, 2001; Hall, 2003). Hall (2003) outlines several key issues in the structuring of equity-based compensation that have a critical impact on influencing managerial behavior that leads to an increase in firm value. For example, long vesting periods and the related uncertainty about the size of any eventual gain on the sale of shares make the use of stock and stock options unattractive in comparison with immediate cash payments (e.g., in the form of a salary and/or bonus). A similar logic explains why shareholders prefer to receive dividends in the present to the risky prospect of eventual capital gains or losses (Easterbrook, 1984). In addition, the specific details relating to the design of an equity-based can result in varying degrees of sensitivity to overall market fluctuations, over which the

[24] In prior periods, performance-based pay was utilized in executive compensation. However, it was typically tied to firm profitability measures, such as sales growth and earnings per share, rather than to share value (Healy, 1985; Holmstrom & Kaplan, 2003).

[25] Calculations are based on data from S&P 500 firms (Hall, 2003: 4-5).

executive has no influence or control. Relatedly, the incentive effects of such a compensation scheme will reflect the perceived or actual ability that a manager has to influence firm performance with her functioning as a manager. The typical publicly-traded firm is so large and complex that a given executive's performance as a manager may, in fact, have little (direct) effect on the overall performance of the firm; thus, the incentive effects associated with ownership and participation in profits is much lower here than, for example, in a partnership or a privately-held firm (as will be discussed in greater detail below). The accounting complexities associated with stock and stock option grants may further undermine their incentive effects, since many executives who receive them - and most board members who grant them - do not adequately understand their real value.[26] Lastly, to the extent that an executive's compensation will depend on short-term performance indicators (e.g., the firm's share price), she may be tempted to manipulate accounting data to ensure her own desired compensation level is attained (Burgstahler, Hail, & Leuz, 2005; Leuz, Nanda, & Wysocki, 2003; Moerland, 1995). Consequently, the use of (potential) ownership as a governance mechanism that is intended to align the outcome of executive behavior with shareholder wealth has generated such mixed results that a strong case for it cannot be made without the inclusion of many caveats. Hall (2003), for example, concludes that a return to performance-based pay packages that make greater use of cash and less use of stock options should be given serious consideration due to the superior incentive effects of the former.

Despite the complexity and variety of design associated with performance-based compensation packages and the mixed empirical results concerning their efficacy, they have been widely adopted in the corporate sector and are increasingly being utilized in the public sector. Given the taken-for-granted assumption that performance-based pay provides superior incentives in comparison with a fixed salary, the introduction of such schemes is also associated with the NPM reform movement.

In contrast to the corporate sector, employment in the public sector has traditionally been associated with job security, career advancement via a merit system and salary protection based on a system of collective labor bargaining (Boyne, 2002; Buchanan, 1974; Chen, 2012; Rainey, 1982, 2009; Vandenabeele, 2008). While an elaborate system of rules and formal procedures is seen as decreasing managerial flexibility and autonomy in the public sector (Chen, 2012), which may be viewed as a drawback, at the same time public sector managers have been shielded from the market pressures and individual accountability for organizational performance that is faced by managers in the private sector. The introduction of performance-based management techniques was intended to change this bureaucratic

[26] The design of executive compensation packages is often outsourced to consulting firms that specialize in this area.

culture by stimulating public servants to think and act more like their peers working in the private sector

As might reasonably be expected, the use of performance-based pay in the public sector has thus far generated even more mixed and inconclusive results than in the corporate context. The findings of an 1982 survey of US federal government and private sector 'middle managers'[27] by Rainey (1982) might have been viewed as a harbinger of such future difficulties. Specifically, this research revealed clear differences in the reward preferences between these two groups. The study found that government managers gave a lower rating to the importance of financial reward, as a career goal, than did their private sector counterparts, while giving a higher rating to the importance of "helping other people" and doing work that is "worthwhile to society" than their private sector counterparts (Rainey, 1982: 290).

A recent meta-analysis of research exploring the relationship between individual performance and performance-related pay in the public sector corroborates Rainey's findings (Weibel, Rost, & Osterloh, 2010). These authors analyzed the results of forty-six experimental studies and concluded that increased performance by public sector managers can largely be attributed to intrinsic motivation rather than extrinsic motivation (and, specifically, to the promise of a financial reward). In fact, it was found that the use of monetary (i.e., extrinsic) rewards tended to reduce the performance of those with a high level of intrinsic motivation, suggesting that extrinsic motivators, such as performance-based pay, may 'crowd out' the positive performance effects related to intrinsic motivation.

Finally, the problem of goal ambiguity, combined with a lack of standardized performance measurement techniques (which appear to frequently preempt the successful utilization of performance indicators in public sector organizations), also significantly weakens the ability of managers to motivate their staff by offering performance-based rewards (Chen 2012: 440).

Turning to the current situation in German universities, until now, a very small percentage of a state's budget for higher education (between about one and five percent) could be allocated to individual universities as a reward for good performance (Huefner, 2003: 158). Presumably the incentive effects of such small bonuses are low. In addition, it should be pointed out that neither the annual compensation of university managers nor of faculty members is directly linked with achievement of these goals. Rather, the benefit usually takes the form of increased financing for the university as a whole or for individual faculties. This could be expected to moderate the incentive effects for improvement of individual

[27] "A 'middle manager' was defined as a person below the level of vice-president or assistant agency director, with at least one level of supervision below him or her" (Rainey, 1982: 292)

performance. Last but not least, linking a rector or dean's salary to overall university performance may nevertheless fail to achieve the desired performance enhancement, since these individuals may lack the ability to exert meaningful influence on aggregate university-wide performance. Making a significant part of their compensation contingent on factors outside of their control is, on the other hand, likely to be more de-motivating than motivating and, on the other hand, is inconsistent with responsibility accounting best practices.

In general, the compensation of university managers and faculty members continues to be consistent with the traditional public administration model, leaving open the possibility of introducing performance-based compensation schemes to directly reward individual staff members for their achievements. Keeping in mind the "crowding out" effect that financial rewards arguably have on public employees possessing a high level of intrinsic motivation, alternative forms of rewards should be tested for their efficacy in improving individual performance. This would also need to be supported by a system of responsibility accounting as well as a common set of transparent and objective indicators of individual performance. Lastly, it must be noted that awarding significant monetary bonuses to academic staff may be politically unpopular, given the negative media coverage of top executive compensation in the private sector.

This brief review of the literature has highlighted the opportunities and risks related to the use of performance-based pay in both the corporate and public sector contexts, from which several conclusions can be drawn. Firstly, when well designed, transparent, and not overly complex, a performance-based pay scheme may function appropriately as an effective governance instrument. However, the associated costs may be high, therefore offsetting at least some of the intended benefits. In the worst case, such schemes may reduce managerial performance, which will have consequences for overall organizational performance. Lastly, several decades of research findings have revealed the difficulty in changing the public sector organizational culture and, in particular, the motivation and work attitudes of public managers toward their jobs (Boyne, 2002; Buchanan, 1974; Chen, 2012; Rainey, 1982, 2009; Vandenabeele, 2008).

3.3.3.4 Information Requirements

Complementing the use of performance indicators, responsibility accounting and performance-based pay is the publication of financial and other information about the firm at regular intervals for use by external stakeholders; namely, shareholder-owners. In order to lend credibility to the use of performance goals and performance-based pay, shareholders need to be able to objectively measure management's performance on the achievement of goals and, in order to do so, require access to objective information. To enable this insight, external accounting reporting requirements are imposed on publicly traded firms.

Bushman and Smith define the governance role of financial accounting information as "the use of externally reported financial accounting data in control mechanisms that promote the efficient governance of corporations" (2001: 238). The use of a common set of financial accounting reporting standards (including measurement and reporting practices) facilitates the evaluation of a given firm's performance over a number of periods but also enables comparisons between different firms to be made. Financial accounting and reporting standards also provide the basis for key performance indicators with which firm (and, therefore, management) performance is measured and evaluated.

The governance value of financial reporting standards is strengthened by the independent audit requirement for financial statements (Bushman & Smith, 2001). From this perspective, the external auditor is viewed as a 'gatekeeper' who safeguards the interests of shareholders and the capital markets by attesting to the integrity of the financial statements provided by the firm's management (Coffee, 2003; Ribstein, 2009). While an audit does not preclude accounting fraud, it does provide reasonable assurance that the information reported in the financial statements is fair and accurate and is compliant with financial accounting standards. The legal obligation to regularly publish audited financial statements helps to remedy the problem of information asymmetries that lead to many of the problems that agency theory addresses.

A key aspect of NPM reform, which has been increasingly embraced by public sector reformers in Germany, is the adoption of accounting practices used in the private sector. Similarly, advocates of education finance reform have pleaded for the implementation of a new, accrual basis system of accounting at universities to replace the traditional cash basis system of accounting (Kuepper, 2003). However well-intended they are, such aspirations are, to a large extent, doomed to fail from the outset, since the fundamental principles underlying accrual-basis financial accounting are premised on organizations being privately owned and profit-seeking.

Instead, a more fruitful approach would involve the design and implementation of an information system that would record data that could be used to measure, report and evaluate performance on universities goals. While these goals may be quantifiable, they are not necessarily related to financial goals, such as profitability. The important point is not that private sector accounting practices are directly adopted by universities; rather, that an information system is created that reflects the governance characteristics of private sector reporting systems. These characteristics include (but are not limited to) the following: information that is relevant to key stakeholders; information that is verifiable, accurate and free from bias; and, information that is consistently reported at regular intervals and in a timely manner.

Given that education policy in Germany falls under the auspices of state government control, the development of a common system of university accounting that is appropriate for the public sector context should be feasible at the state-level. In order to improve the competitiveness of German universities at the national and international levels, the use of a 'universal' set of university reporting requirements would be recommended; whether or not the political will to harmonize a system across states exists is another question. Should the willingness be forthcoming, such a set of standards could be developed, for example, as a cooperative effort amongst the states via the KMK or the HRK. However, a thorough cost benefit analysis should first be conducted in order to analyze the feasibility of implementing such an information system and to determine the number of states and universities willing to participate, before constructive steps in this direction could be taken.

3.3.3.5 Performance indicators are no panacea

Despite the many merits of using performance goals as a governance instrument, there is always the risk that the goals will have unintended consequences. Firstly, if goals are perceived as unrealistic, responsible managers may either resist them or resort to falsifying results in order to give the appearance that goals were achieved. The risk that such "gaming" behavior will occur increases in an organizational environment with weak internal controls. Accounting fraud is well documented in the private sector but has also been observed in the public sector (Bevan & Hood, 2006). Even academia is not immune to gaming and fraud, as recent cases of plagiarism, the manipulation of research findings and the falsification of data have revealed. Secondly, too great an emphasis on specific goals can result in managers "hitting the target and missing the point" (Bevan & Hood, 2006: 521). For example, once a target goal is reached, managers may reduce their efforts, with the consequence that the maximum potential performance that might otherwise have been reached will not be achieved. In this respect, it reduces managerial flexibility and, more importantly, it reduces managerial incentives to react proactively to unexpected changes in the environment that could otherwise be exploited for organizational gain. Thirdly, the selection of certain performance goals implies an opportunity cost related to goals that were not selected. In the case of the German university system, the new emphasis on output numbers (i.e., the number of students enrolled, the number of graduates, duration of studies, the number of academic staff, etc.) ignores the quality of outputs. It may be the case that some study programs require a more costly student-teacher ratio than others in order to achieve an adequate quality of educational service. A focus on numbers ignores variation in the labor intensity and quality standards that differentiate different study programs. Lastly, even a well-designed system of performance-based management can fall victim to the political process. Namely, public organizations may face substantial resistance to scaling back or discontinuing inefficient or ineffective services due to external political pressures from (small) constituencies who benefit the most from these services (Fottler, 1981).

3.3.4 Summary: Implications of the Corporate Model for Organizational Governance and Strategy

The foregoing discussion has highlighted some similarities in the governance of the archetypal large corporation, with a widely dispersed ownership structure, and the archetypal public organization, which may explain the rationale for the tendency to adopt corporate governance features in the public sector; in this case, the German public university sector. Both types of organizations are governed in a way that is aligned with the interests of their owners (or their political equivalent) as the most important stakeholder group. In both cases, small shareholders and individual politicians can be described as pursuing their own, respective, interests, which can be summarized as maximizing the short-term return on their investments of capital; financial capital, in the case of the former, and political capital, in the case of the latter. These interests may not necessarily be consistent with the best long-term, strategic interest of the organization (or the interests of other stakeholders) and may even be detrimental to its long-term performance. Last but not least, key corporate governance techniques that are especially popular with advocates of NPM-style reform suffer from inherent weaknesses that compromise their efficacy. In the best case, they may have little or no effect on managerial functioning and organizational performance; in the worst case, they may have a detrimental effect on both. Therefore, it can be concluded that replacing certain elements of the traditional public administration approach to the governance of German public universities by borrowing heavily from the corporate model of governance cannot be expected to improve university governance. In fact, it may simply amount to replacing old governance problems with new ones, or, adding additional governance problems to existing ones.

3.3.5 New Public Management: Inspired by Corporate "Raiders"?

As mentioned above, the NPM reform movement began in the period of the late 1970s to early 1980s. This paradigm shift in the public sector did not, however, take place in a vacuum. The 1980s are perhaps best known for the transformation in organizational finance and management that occurred in the private sector and, most notably, in corporate America. According to Holmstrom and Kaplan, "before 1980, corporate managements tended to think of themselves as representing not the shareholders, but rather 'the corporation'. In this view, the goal of the firm was not to maximize shareholder wealth, but to ensure the growth (or at least the stability) of the enterprise by 'balancing' the claims of all important corporate 'stakeholders'— employees, suppliers, and local communities, as well as shareholders" (2003: 10). Corporate strategy was indisputably the exclusive domain of top management, with little shareholder influence. In the early 1980s, financial experts began to argue that, from the shareholder perspective, many firms were underperforming; particularly the highly diversified conglomerates. This lead to the now infamous wave of corporate restructurings, conglomerate bust-ups, and leveraged buy-outs, which were both glamorized and vilified by such Hollywood movies as *Wall Street*. The resulting shake-up illuminated the newfound power of capital markets in disciplining poorly performing management (Holmstrom & Kaplan, 2003: 11; Jensen, 1993: 869, 871).

Given the recency of these transformational changes in corporate governance, it is perhaps not surprising that the governance literature has largely focused on the governance of large, publicly traded firms and the agency problems associated with the separation of ownership and control. Consequently, this preoccupation with the modern corporation has eclipsed the study of governance in other organizational forms with alternative governance structures (Greenwood & Empson, 2003; Ribstein, 2009). This may account for the observation that NPM-inspired reformers have tended to focus their attention on the adoption and adaptation of the corporate model of organizational governance, while neglecting to consider alternative private sector approaches to governance in their advocacy of public sector reforms.

In the next section of the paper, an alternative model of university governance is proposed that combines the most promising features of the professional partnership form of business and, specifically, of the professional service firm, and exploits the unique characteristics of the higher education context. Its practical applications for university governance and finance reform in Germany are critically discussed.

3.4 Governance in Professional Service Firms: The Case of the Professional Partnership

Professional service firms (hereafter, PSFs) are businesses characterized as employing highly skilled individuals who provide knowledge- and human-capital intensive services (von Nordenflycht, 2010). While these individuals typically belong to a profession, that need not be the case. Examples of PSFs frequently cited in the literature include law firms, accounting firms, management consultancies, medical practices and advertising agencies.[28] Taking a resource-based view of the firm, human capital is the key source of competitive advantage in a PSF (Empson, 2001).

While sometimes organized as corporations with outside shareholders, the archetypal PSF is organized as a professional partnership[29]. This choice of organizational form is significant, in that a partnership has unique governance features that distinguish it from the corporate model of governance. Namely, in contrast to the corporation, with its clear separation of

[28] See von Nordenflycht (2010: 156) for a summary of the industries included in a review of the PSF literature.

[29] Some self-regulating professions, such as law and accountancy, do not allow outside ownership; only licensed professionals may participate in the ownership of the firm. This is related to a strong code of professional ethics and "is intended to prevent the introduction of pressures that might compromise the interests of clients" (von Nordenflycht, 2010: 163).

ownership and control, a partnership combines ownership, management and operations (Greenwood, Hinings, & Brown, 1990; 2007; Ribstein, 2009; von Nordenflycht,). As explained by Greenwood et al., "a partner is an owner of a firm, is involved in its overall management, and is a key production worker" (1990: 730). As a consequence, authority is shared by all owner-managers and is characterized by "broad participation in strategic decisions, rotating executive positions and high individual autonomy in the production process" (von Nordenflycht, 2007: 431). Greenwood et al. observe that, "in a partnership, the professional system of authority is institutionalized in the ownership structure. The formal voting system underpins the equality of authority. Thus, individualized, autonomous day-to-day activities and collegial, group-based decision making on policy are combined. This juxtaposition makes the authority system very different from that of a corporation, with its institutionalized recognition of positional authority funneled to a strategic apex" (1990: 734). Thus, employee-owners are actively involved in formulating and executing strategy, while at the same time representing the organization's key strategic assets.

Professions, as occupational groups, have been a focus of sociological research, which has identified key traits that distinguish them from other occupational groups (von Nordenflycht, 2010: 156; Scott, 1965). In general, professionals are characterized as having a high degree of bargaining power vis-à-vis employers, given both the scarcity and the transferability of their knowledge, skills, and abilities, combined with a strong preference for "autonomy and freedom from external constraint" in their work environment (Greenwood & Empson, 2003: 916; Moe, 1995; von Nordenflycht, 2010). They are typically engaged in work that involves solving complex and unique problems for individual clients, which makes bureaucratic approaches to monitoring and control (i.e., characteristic of large corporations and public organizations) infeasible (Greenwood et al., 1990). Consequently, they have been viewed as "exceptions to the rationalization of much of economic life into hierarchical bureaucracies" and as being difficult for organizations to direct and retain (von Nordenflycht, 2010: 157, 160).

This field of research has also encompassed professional organizations. For example, Weber offered a typology of "autonomous" and "heteronomous" professional organizations distinguished by their internal governance structures and the degree of relative autonomy accorded to the professionals they employ (Scott, 1965: 66). As explained by Scott, in autonomous professional organizations, "professional officials delegate to the group of professional employees considerable responsibility for defining and implementing the goals, for setting performance standards, and for seeing to it that standards are maintained… Individual professionals are expected to be highly skilled and motivated and to have internalized professional norms so that little external surveillance is required" (1965: 66). In the case of heteronomous professional organizations, "professional employees are clearly subordinated to an administrative framework, and the amount of autonomy granted professional employees is relatively small. An elaborate set of rules and a system of routine supervision controls many if not most aspects of the tasks performed by professional employees…" (Scott, 1965: 67). Scott's own case study of professional workers in an American public social work agency complemented prior research, which had indicated that professionals place high value on autonomy in the workplace, by showing that professional workers also tend to be more critical of monitoring and control structures found in heteronomous organizations (1965: 81).

As an organizational form, when viewed from a legal and financial perspective, a partnership is created by a contractual agreement between two or more individuals who agree to share the risks and the profits resulting from the operation of a business. In contrast to the limited liability enjoyed by shareholders, owing to the fact that the corporation is a legally separate entity, the partnership is not a legal entity separate from its partner-owners. Consequently, each partner bears unlimited personal liability for the debts of the partnership, even if they were incurred by another partner (on behalf of the partnership).[30] Given that an individual partner is, on the one hand, a mutual beneficiary of her partners' actions but is also, on the other hand, mutually liable, she has very strong incentives to monitor and control her partners' behavior. This results in an internal agency problem that is resolved with a form of governance referred to by Fama and Jensen (1983) as a strong "mutual monitoring system".[31] In fact, it is the primary form of governance in partnerships and professional service firms. Control within the organization reflects an "emphasis on collegiality, peer evaluation, and autonomy", which are unique governance features characteristic of the professional partnership (Greenwood et al., 1990: 733).

Greenwood and Empson provide a number of arguments to support their assertion that the internal agency costs in a professional partnership or a PSF are, in general, much lower than the external agency costs associated with the separation of ownership and control in the modern firm. First, partners are more knowledgeable about the business of the firm than are investors in public corporations, enabling them to monitor more efficiently the behavior of their agents (Fama & Jensen 1983). Second, the proximity of partners to managers provides opportunities to exercise influence in a way not available to more dispersed shareholders. Third, managers are likely aware of the scrutiny of their colleagues. In short, professional partnerships and private corporations are more efficient than public corporations because their internal agency costs are lower than the external agency costs incurred by public corporations (Greenwood & Empson, 2003: 915-916).

Thus, the professional partnership avoids the agency problems arising from information asymmetries that plague the relationship between managers and shareholders of the firm. An additional benefit of the partnership identified by Ribstein (2009) is its flow-through

[30] Some relief from full personal liability is offered in the form of the "limited liability partnership". However, in order to be exempted from full liability, a partner must be able to prove that she was unaware of and not involved in any wrongdoing or negligence perpetrated by the other partner(s) (Greenwood & Empson, 2003: 915).
[31] Mutual monitoring as a form of governance has proven to be especially effective in knowledge-intensive organizations and particularly in professional service firms.

entity status. Namely, earnings must legally be distributed to partners, thereby preempting the agency problem associated with control over free cash flows that increases agency costs in firms (Easterbrook, 1984, Jensen, 1986; Kochhar, 1996; Lehn & Poulsen, 1989). In summary, partnerships "substitute effective incentive and disciplinary mechanisms for costly corporate monitoring mechanisms" (Ribstein, 2009: 306).

According to von Nordenflycht, "both economic and sociological theorists argue that a strong culture that fosters cooperation and intrinsic motivation is a key source of advantage for PSFs, because professionals' portable skills render formal authority and traditional incentive systems less effective" (2007: 431-432). This accounts for the prevalence of "collegial rather than hierarchical controls", characteristic of both professional partnerships and PSFs, and contrasts with the "emphasis on targets and the close monitoring of results" typical of the hierarchical controls observed in firms and increasingly utilized by public organizations as a consequence of NPM-oriented reforms (Greenwood & Empson, 2003: 916). Thus, the formal processes and hierarchical control structures associated with corporate governance and traditional public administration are likely to conflict with informal processes and 'collegial controls' that underlie the governance of professional partnerships (Moe, 1995; von Nordenflycht, 2007: 432). Moe argues instead for the judicious selection of professionals for bureaucratic positions coupled with an organizational design that "affords them substantial discretion and autonomy" (1995: 135).

In fact, the costly information requirements associated with the use of performance indicators and performance-based incentive schemes as means of governance directly related to the external agency relationship arising from the separation of ownership and control in the modern firm. Given that there is no outsider ownership in the professional partnership, no external agency relationship exists that gives rise to possible information asymmetries, which necessitate costly information requirements. Mutual monitoring internalizes organizational governance and control, providing better and more efficient governance at lower cost.

Also unique to the professional partnership is the influence of personnel policy on organizational finance. The primary source of capital for a professional partnership is the capital contributed by the partners. Indeed, the chief advantages of the corporate form of business are access to capital markets and the ease with which ownership can be transferred (von Nordenflycht, 2007: 430). Since partnerships have limited access to capital beyond the capital that is contributed by (new) partners (Greenwood & Empson, 2003), it is crucial that becoming a partner is considered to be desirable. Expressed in terms of basic supply and demand, a low supply of partnership vacancies combined with a high demand for becoming a partner will result in a premium price that potential partners are willing to pay to gain entry to a partnership, as reflected by the initial capital contribution.

In fact, partnership in most professional service firms is highly sought after by junior staff, given the high monetary rewards, the social prestige, and the ability to actively participate in decision-making that it entails (Greenwood, Deephouse, & Li, 2007: 222; Greenwood & Empson, 2003; Ribstein, 2009; von Nordenflycht, 2007). The 'up-or-out' system of career advancement, which is often utilized in professional service firms, exploits the 'tournament system' of motivation (Becker & Huselid, 1992; Greenwood, Deephouse, & Li, 2007). As explained by von Nordenflycht, "after several years of employment junior professionals are either invited to become partners (up) or are asked to leave (out) but are not allowed to stay indefinitely as nonpartners" (2012: 168). This approach to career advancement supports the selectivity and, therefore, exclusivity of becoming a partner, stimulating demand for becoming a partner and thus allowing the partnership to require a high capital contribution from new partners and thereby supplying the firm with needed capital.

This relationship between organizational finance and human resource management is a direct consequence of the unification of ownership, management and operations that distinguish the professional partnership as a unique organizational form. It also reflects the unique governance features associated with this organizational form. Namely, the up-or-out career trajectory serves a latent monitoring and control function. It is associated with a very diligent work ethic and a commitment to quality that are frequently associated with such professional service firms, which is further reinforced by the capital contribution made by eventual partner-owners. In addition, the significant commitment of capital combined with the ability to actively engage in both operational and strategic management increase the long-term orientation of partners to their partnership as an organization. In summary, the up-or-out system of career advancement functions as a behavior-oriented governance mechanism that ensures the alignment of interests of partners (as capital providers and decision makers), junior staff (as aspiring partners), and clients of the firm.[32] Importantly, it promotes consensus in decisions concerning strategy and the use of available capital in pursuing strategic goals. Furthermore, it ensures a high level of commitment among its partners and staff to the firm, to its goals and its clients. Finally, there is a much clearer and stronger link between an individual partner's effort, firm performance and the financial results. This clear link has a powerful influence on partner behavior, given both its incentive and governance effects.

It is important to note the difference in the use of ownership as an incentive in partnerships in comparison to publicly traded firms. Firstly, becoming a partner results from hard work and an exemplary level of performance achieved in a highly competitive internal labor market. Participation in strategic decisions and general management of the partnership

[32] Concerning professional partnerships employing highly educated and highly skilled workers, a "collegial" style of management that encourages and respects the autonomy and freedom of the individual is preferred to the hierarchical controls that emphasize performance targets and involve the close monitoring of results that are generally associated with management in publicly-traded firms (Greenwood & Empson 2003: 916).

represent a privilege of partnership that must be earned. In contrast, executives of publicly traded firms are hired for the express purpose of making high-level decisions for the firm and are automatically made owners when shares of stock (or, in the case of stock options, potential owners) are included in their compensation package. In other words, ownership is granted in advance and does not have to be 'earned' or paid for. Secondly, partner-owners place a substantial amount of their own wealth at risk and, at the same time, expose themselves to debts incurred by the partnership, which has a strong incentive effect on the behavior of both current and aspiring owners. From this perspective, a partner exposes herself not only to the potential financial rewards of partnership but, crucially, she also exposes herself to significant risk of financial loss.[33] Since a corporate executive does not have to buy the shares or the options, she simply receives them as compensation, she cannot lose money; rather, she only stands to gain an uncertain amount, based on the overall performance of the firm. This highlights a crucially important aspect of the governance attributes of ownership; namely, that the risk of financial loss appears to be a much more effective instrument of governance than does the possibility financial gain.[34]Thirdly, partners become partners for life. Unlike an employment contract, which has definite expiration date or may otherwise be terminated at the discretion of the board, a partnership is for an indefinite period. Consequently, partners implicitly make a substantial, long-term financial and reputational investment in the partnership, which results in a greater commitment to the long-term strategic interests of the partnership and its stakeholders as compared to the commitment made by an executive to a firm she is hired to manage.

In contrast to publicly traded firms, which explicitly accord the interests of shareholders the highest priority, a core "trusteeship" norm thought to be common to the professions is a sense of responsibility to "protect the interests of clients and/or society in general" (von Nordenflycht, 2010: 163). Describing the legal profession, Greenwood and Empson observe that "clients can engage professionals confident that *their* interests will not be subordinated to the commercial interests of other outside the firm" and that the partnership form will ensure that this is so, whereas "the corporate form legitimately attends to the interests of the shareholder with the result that commercial success supplants or qualifies service as the primary motive" (2003: 919). As von Nordenflycht points out, this trusteeship norm also has an important influence on organizational form and ownership structure. Specifically, he

[33] As described by Ribstein, each partner has a significant equity investment and thus "substantial upside profit and downside risk" exposure (2009: 298).

[34] For scholars of prospect theory, this insight will not come as a surprise. Empirical research in this field has found that individuals are substantially more sensitive to losses than to gains (of the same amount) (Tversky & Kahneman, 1981). Specifically, Thaler, Tversky, Kahneman, and Schwartz found that individual's rate the disutility they experience from losing $100 as approximately twice the utility they experience from gaining $100 (1997: 648). Furthermore, individuals perceive the relative value difference between gains (losses) of $10 and $20 to be greater than between gains (losses) of $110 and $120 (Tversky & Kahneman, 1981: 454).

argues that “the existence of normative and coercive prohibitions against organizational forms that are perceived to threaten trusteeship behavior”, such as “having nonprofessionals, especially commercially oriented nonprofessionals (such as investors), involved in the ownership and governance of professional firms”, “is intended to prevent the introduction of pressures that might compromise the interests of clients” (2010: 163). Thus, in contrast to the firm and the public organization - both of which emphasize the centrality of the organization and interests of owners (and their political equivalents) vis-à-vis the organization - of central concern in the governance of professional partnerships and PSFs are the services being rendered. Therefore, key mechanisms of governance monitor and control the behavior of stakeholders vis-à-vis the provision of professional services.

Finally, research suggests that the unique governance features associated with the professional partnership and the PSF are also associated with organizational performance that is superior to the performance of the corporation. An empirical study of management consultancies by Greenwood et al. found that partnerships and privately held firms outperformed publicly-traded firms in the consulting industry, regardless of the level of organizational complexity or geographical scope of operations. The authors conclude that organizations that are managed and controlled by owners perform on average better than those organizations that are characterized by a separation of ownership and management (2007: 232). Indeed, the fact that owners place their own capital at risk is considered to be a ‘signal’ of quality and integrity to clients and other stakeholders (Van Lent, 1999: 240).

3.5 Relevance for the Academic Context and University Governance Reform in Germany

In several important aspects, the combined governance features of the professional partnership and the professional service firm offer a superior alternative to the corporate model of governance for reform of public university governance in Germany. These key aspects are highlighted below.

3.5.1 Greater Similarities Imply a Better Fit

University faculties share important characteristics with professional partnerships and PSFs that can lead to overall lower agency costs and superior governance outcomes for universities than can be realized by universities following either the corporate or the traditional bureaucratic models of governance. Firstly, academic faculties employ mostly knowledge workers who engage in unique and complex human capital-intensive work. Sociological research indicates that such workers thrive in autonomous professional organizations, as typified by the professional partnership and PSF, compared with heteronomous organizations, which more closely resemble organizations with steep hierarchies, such as corporations and public bureaucracies. Secondly, the interests of the professors within a faculty are sufficiently similar, thus ensuring that reaching consensus in both operational and strategic decision-making is facilitated. Thirdly, and as is the case with knowledge-intensive work in the private sector, the work of academic staff does not lend itself to monitoring and control by bureaucratic, hierarchical techniques, such as the use of performance indicators.[35] Instead, there is a sufficient overlap in knowledge of colleagues' work, despite individual specializations, such that internal "mutual monitoring" and control is facilitated. These characteristics mirror key attributes of knowledge workers and governance in the partnership and PSF contexts. In addition, German professors have historically enjoyed a large degree of "academic freedom", implying a great deal of autonomy in planning and carrying out their own work. This characteristic is, once again, consistent with the general profile of professionals and knowledge workers. Finally, to the extent that individuals attracted to academic employment tend to be more intrinsically than extrinsically motivated, the nonfinancial rewards associated with partnership in a faculty may produce greater performance benefits and higher job satisfaction than the monetary rewards linked to performance goals set by nonacademic administrators outside of the faculty, as are currently under consideration following the corporate approach to governance reform. This is also consistent with the observation that both professionals and public sector workers tend to gain greater utility from actually engaging in their work than the utility gained by monetary rewards for work done (Dixit, 2002: 714-715).

Although an academic career is not a profession comparable with law or accounting, which have very specific requirements for entry into the profession, including educational background, formal work experience and state licensure exams, an academic may be considered a professional as, "someone who receives important occupational rewards from a reference group whose membership is limited to people who have undergone specialized formal education and have accepted the group defined-code of proper conduct" (Wilson, 1989 cited in Dixit, 2002: 715). Furthermore, universities may be conceptualized as professional service firms, since they "depend on professional employees to carry on their central activities and achieve their primary purposes" (Scott, 1965: 66).

3.5.2 More consistent with the spirit of NPM

In adopting the partnership model, key operational and financial management decisions would be devolved and decentralized to the level of faculty partnerships, which is more consistent with the spirit of NPM reforms, as explained above, than the current reform trend, which divides authority for decisions between state-level government and university executive management. Implementation of the partnership model at the faculty-level would result in a hybrid organizational form, in which partnerships are embedded in a larger organization. An important consequence of this is that the overall organizational structure of

[35] For example, whether a certain percentage of students pass a lecturer's course says little about the quality of her teaching, the design of her assessment instruments or the efficiency of her work (it may be more a reflection of the quality of the students and, therefore, the performance of the admissions office).

the university becomes a flatter, rather than a steeper, hierarchy, as would result from full implementation of a corporate-based model of governance. This is more consistent with the spirit of NPM than the corporate model of governance.

As such, individual faculties may be treated as profit centers by the central university leadership. In other words, responsibility for both cost management and revenue generation (e.g., via the establishment of tuition fees) would be delegated to the individual faculties.[36] Considerable decision making in all key areas - operations, finance, and strategy – would therefore be devolved to the level of the individual partnership-faculty, which is more consistent both with responsibility accounting practices and with management practices observed in professional partnerships. Crucially, each faculty would have the autonomy to determine the mix of financing appropriate to fund its own operational and its strategic goals. In this respect, faculties could consider a mix of financing sources that may include tuition fees, debt (via the sale of bonds, for example), state funding (as a result of a competitive bidding process), and third-party funding, which may include charitable contributions or even venture capital, which is not uncommon to fund innovative educational projects, such as Coursera.

In a similar vein, this model allows for a market dynamic to flourish within the broader organization, enabling individual faculty-partnerships to not only compete with but to also cooperate with each other on a voluntary basis, when synergies and economies of scale and scope can be exploited. Individual faculties would be stimulated to seek out opportunities to cooperate with other faculties, where mutual benefits can be exploited (e.g., to reduce overhead costs for facilities or for secondary services, such as administration and marketing). Faculties may also enter into strategic alliances or joint ventures to cooperate on projects or to share in the purchase of equipment or the construction of new facilities. Thus, the partnership model would promote natural market bargaining dynamics between faculties within the university that would ultimately increase overall operational efficiency, while the internal governance mechanisms of the model would improve the quality of education and research output by individual faculties (and departments therein).

This change in organizational governance at the university level may result in a reorganization of way in which states allocate funds for education. For example, funds may be shifted away from global budgets allocated to fund university operations and capital expenditures, to funds for student loans and special loans for professors who may lack the personal wealth required to make an initial capital contribution to their faculty when they become eligible for partnership.

[36] Based on the assumption that the trusteeship norm holds, it can be assumed that faculties would not charge an exploitative tuition fee and would, as far as possible, continue to support the long-held social goal of equitable access to higher education.

Concerning the latter, the capital contribution requirement of the partnership model is a governance feature that has relevance in the university context in two important ways. Firstly, a capital contribution would serve as a signal to the public indicating the credibility and integrity of a professor's commitment to her profession and to her trusteeship role. Secondly, the capital contribution requirement improves upon the traditional tenureship model by providing continual incentives for professors to be meaningfully involved in the operational and strategic management of their faculties even after gaining partner status.

3.5.3 Reduced Agency Costs and More Effective Governance

Key governance features such as peer assessment and mutual monitoring represent more effective, objective and appropriate means of managing and evaluating both individual and group performance of professional knowledge workers, in the university context, than the use of performance indicators set by state bureaucrats or other nonacademic managers. They are also less costly, to the extent that they do not necessitate the information requirements that underlie external monitoring and control.

Furthermore, the unintended consequences of the new performance-based governance techniques implemented in universities can be seen. For example, the increased use of temporary employment contracts contingent on the achievement of certain goals, such as the number of articles published in peer-reviewed journals, has resulted in a startling number of cases of academic fraud – ranging from plagiarism, to the fabrication of data, and to the falsification of research findings. Moral hazard, adverse selection and gaming problems increase with the selection of academic staff and the use of performance-based management techniques by non-academic managers. While it is impossible to completely prevent fraud, the internal monitoring and control features unique to the professional partnership and PSF are more promising than the external monitoring and control features of external governance executed by non-academic managers and state politicians, particularly in the university context. They provide constructive incentives that are consistent with the characteristics of academic workers, who are intrinsically motivated, highly skilled, autonomous professionals, while minimizing the (agency) costs of external monitoring and control.

3.6 Conclusion

The aim of this chapter was to offer an alternative to the corporate model of governance for consideration in the reform of public university governance in Germany. As a first step, the relative strengths and weaknesses of key features of the corporate model of governance were reviewed and their implementation in the German higher education sector was critically discussed. Next, the unique governance features of the professional partnership and the professional service firm were discussed to provide a comparison with corporate governance. Lastly, the relevance of this alternative model of organizational governance for reform of public university governance in Germany was discussed. On this basis, it can be concluded that the combined features of the professional partnership and the professional service firm provide a model for university governance reform that is far superior to that of the corporate model for three fundamental reasons. Firstly, the key characteristics of governance are far more consistent with the academic work environment and academic workers than is the corporate model of governance. Secondly, its decentralization and devolution of key decision making authority to the level of individual university faculties, particularly with respect to financial and personnel management is much more in line with the spirit of the NPM reform initiative and with historical university tradition in Germany. Finally, such an approach to university reform is much more likely to be accepted by both academics and the broader public, as it restores the historical trust in and freedom accorded to the academic profession and avoids controversial corporate governance instruments, such as performance-based pay, which, as research suggests, may prove ineffective in the university context.

4 The Professional Partnership as an Alternative Model for University Governance Reform: A Roadmap for Implementation in Germany

4.1 Introduction

In Chapters 2 and 3 of the dissertation, a theoretical foundation for the formal professionalization of more types of knowledge work and for the partnership as an organizational form and as alternative governance structures for knowledge-intensive organizations and transactions in knowledge-intensive services is developed. In the academic context, these complementary approaches to governance are proposed to be superior to both the traditional public bureaucratic model of university administration and the corporate style of management and governance. In particular, the professional partnership is argued to optimize the governance of knowledge-intensive service transactions, such as education, in a cost minimizing way. Arguments are grounded in agency theory, institutional theory, and transaction cost theory. Importantly, such an approach to university governance is also consistent with the spirit of the German *Hochschulgesetz*, referenced above, as well as several recent reports published by the *Wissenschaftsrat* (the German Council of Science and Humanities)[37], which plead for fundamental and far-reaching reforms in German higher education, including the professionalization of academia. Building on this work, the current paper examines two approaches to the implementation of the professional partnership concept in German public higher education: a market-based model and a hybrid organizational model.

The chapter is structured as follows. In section one, an approach to the formal professionalization of academics is explained and discussed. In section two, two alternative ways of implementing the professional partnership concept are discussed: the hybrid organizational model and mode of governance - briefly introduced in the second paper of this dissertation - is more fully elaborated and a market-based model is presented. The discussion of each respective governance model is structured in terms of the organizational characteristics of control, funding and ownership. In addition, the implications of each model for university finance and strategy, the consistency of each with the spirit of university governance reform, and the incentive effects for those working in academics are considered. Section three summarizes the foregoing discussion and concludes.

[37] The *Wissenschaftsrat* describes itself as, "one of the leading science policy advisory bodies in Germany. It advises the Federal Government and the governments of the German Länder (Federal States). It produces recommendations on the development of science, research and higher education, thus helping to ensure that German science and humanities remain competitive at national, European and international level. The recommendations of the *Wissenschaftsrat* involve considerations concerning quantitative and financial effects and the implementation of such considerations, always taking into account the demands of societal, cultural and economic life." Accessed on December 9, 2013 at 11:00 URL: http://www.wissenschaftsrat.de/en/about/function.html

4.2 The Professionalization of Academia

Academia, while not a formally recognized and legally sanctioned profession, nevertheless possesses many of the hallmark characteristics of a profession[38]. As such, the academic community has traditionally enjoyed the social prestige and reputational capital afforded to the professions. Thus, we can speak of academia as a quasi-profession. Indeed, it is arguably the failure to live up to the expectations associated with this quasi-professional status that, to a great extent, accounts for much of the bad press that the academic community has received in recent years. As an example, the front page headline of the October 19th-25th, 2013, edition of *The Economist* declared "How science goes wrong", accompanied by a lengthy article detailing the various ways in which the academic community has failed to live up to the high standards that society has come to expect from it. The failures can basically be summarized as twofold: a failure to self-regulate, on the one hand, combined with an inappropriate incentive system, on the other hand. Perhaps its *quasi*-professional status, coupled with a lack of *actual* professional norms and formal codes of ethics, has led to a failure to consistently and rigorously self-regulate that, when further coupled with inappropriate incentives (e.g., publish or perish), has led to a growing incidence of negligence, fraud and wrongdoing by academics that is eroding its reputational capital. This raises the question, how can academia successfully overcome this crisis of freedom and accountability in order to restore its credibility and reputational capital? I reiterate the theoretical arguments made in the previous two papers, which are also in line with policy recommendations set out by the *Wissenschaftsrat* in reports published in 2007 and 2008, that the formal professionalization of academia is an essential step in solving the governance dilemma and, in the paragraphs below, explain how the professionalization process could be implemented at the national level in Germany.

4.2.1 The Establishment of a Governing Professional Body

The first crucial step in the formal professionalization of academia is the establishment of a national-level governing body. As is the case with the "classic" professions (e.g., accountancy, law and medicine), governing professional bodies are sanctioned by the state with the mandate to self-regulate the profession. Self-regulation may be achieved by such a body in a number of ways.

Firstly, self-regulation occurs at the most fundamental level via the standards established for selection and admission to the profession. This is primarily achieved via the accreditation of educational programs, the formulation of entry requirements and administration of entry exams, when relevant. Successful entry is acknowledged by certification or licensure, which must be maintained through continuing education.

[38] For a detailed discussion of the professions, please refer to the first paper in this dissertation.

Secondly, the establishment and enforcement of a professional code of ethics is an integral aspect of self-regulation. A professional governing body has the authority to establish such a code, to sanction members for ethical breaches, and to determine the appropriate level of punishment. This may vary from the imposition of monetary fines, to temporary suspension of licensure and, in extreme cases, to expulsion from the profession (that is, loss of licensure). The concept of a code of professional ethics for the academic community is discussed in greater detail below.

Lastly, a governing professional body has a broader range of responsibilities that impact on the governance of members. For example, they institutionalize professional norms that inform the attitudes and behaviors of members. In addition, they are responsible for clarifying the mission and vision of the profession, as well as for strategic planning. Concerning the latter, study groups or task forces may be formed for the purpose of, for example, identifying emerging issues and taking public positions on them, for lobbying activities, and for establishing an agenda for continuing professional education.

4.2.2 Selection, Admission and Socialization into the Academic Profession

Again, in line with the established professions, selection and admission to the academic profession should be based on a standardized set of assessment criteria that are to be established and periodically updated, when appropriate, by the profession's governing body. Candidates' demonstration of the achievement of these criteria serves as the key prerequisite for admission into the profession. The assessment may be carried out via examinations and other forms of assessment. If doctoral dissertation is to be retained as an assessment instrument, a set of criteria must be established that seek to assess competencies in the knowledge and skills that *define the academic profession* and are not limited to those that are purely domain-specific[39]. Transparency and harmonization of selection and entry criteria are integral to effective governance, in that they enable subsequent peer mutual monitoring by establishing a common base of domain-specific knowledge and behavioral norms. In a similar vein, they facilitate quality control, which is a key to maintaining a profession's reputational capital. Last but not least, this phase of training and preparation represents a decisive initial stage of the socialization process, in which professional norms are first introduced and unsuitable candidates are (self)selected out of the pool of aspirants.

Selection and admission by examination presupposes the establishment of an explicitly defined set of core competencies, the possession of which defines a profession and its constituent members. Such a set of objective criteria and a transparent examination system

[39] Concerning teaching competencies in higher education, the Wissenschaftsrat (2008) recommends that, already beginning during the doctoral phase, the competencies of aspiring academics should be evaluated by means of a certification system based on a set of universal (hochschulübergreifend) standards (Empfehlungen zur Qualitätsverbesserung von Lehre und Studium, 2008: 67; author's own translation from the original German).

is currently lacking in academia, as illustrated by the disturbing degree of variance in the requirements for doctoral dissertations, as well as in the quality and competency of teaching and research produced across institutions within a given discipline.[40] As with other professions, the mastery of a broad-based set of core competencies should be a prerequisite, while also allowing for further specialization. Concerning the latter, specialization may occur along two dimensions: across and within the knowledge domain, on the one hand, and between the two core functional domains of teaching and research, on the other hand. I am here primarily concerned with the latter, as the former can be solved following practices common to the established professions.

Offering opportunities to specialize at the beginning of the career between research and teaching complements reports published in 2007, 2008 and 2010 by the *Wissenschaftsrat*[41]. Among its recommendations, it strongly supports differentiation within universities "in favor of teaching-orientated areas", which should be reflected in "the necessary adjustments to staffing structures" (2010: 9). These adjustments are discussed in detail in the 2007 and 2008 reports and include a number of salient recommendations, such as: the development of a positive teaching culture in German higher education that offers adequate recognition for performance in teaching; the introduction of periodic meetings in which staff members can exchange thoughts on teaching quality; a new approach to staffing faculties with the goal of hiring personnel who are specifically engaged in teaching, rather than research; enhanced professionalization of teaching by the support of systematic training and continuing education of teaching staff; paying more attention to teaching competencies in the selection of new scientific staff members; and, the establishment of (or expansion of existing) training courses in pedagogics and didactics for the further education of staff (Empfehlungen zur Qualitätsverbesserung von Lehre und Studium, 2008: 77; author's own translation from the German).

In addition, the *Wissenschaftsrat* advocates for increased differentiation between research universities and teaching universities, albeit by taking care to maintain a strong scientific basis. Here, the *university college* concept, explained with reference to the successful Dutch model, is offered as an example of the successful introduction of a scientifically-based yet teaching-oriented approach to undergraduate studies (2010: 95-108). I will return to this

[40] This is not to say that common standards guarantee similar outcomes; it would not. However, it might establish a floor for minimum quality, while allowing plenty of room for more talented individuals to excel.

[41] „Die Bereitstellung von Personalressourcen speziell für die Lehre lässt sich bisher nur schwer steuern. In einem ausdifferenzierten Hochschulsystem und angesichts steigender Studierendenzahlen wächst aber auch der Bedarf, *Personal differenziert nach Tätigkeitsschwerpunkten Forschung oder Lehre zu beschäftigen*" (Empfehlungen zu einer lehrorientierten Reform der Personalstruktur an Universitäten, 2007: 27; emphasis added).

„Die Qualifizierung sollte regelmäßig schon in der Promotionsphase begonnen werden und sich als kontinuierliche Weiterbildung im Verlauf der beruflichen Tätigkeit fortsetzen" (Empfehlungen zur Qualitätsverbesserung von Lehre und Studium, 2008: 66).

recommendation when I discuss the possible consequences of reform for university strategy below.

Specialization within the profession is also consistent with standard practice among the established professions. Concerning the latter, specialization represents a tacit acknowledgment of the basic fact that no individual can be good at everything all of the time. Professions typically encompass a (for non-experts) startlingly broad base of knowledge that cannot realistically be retained by a single individual over the longer term, also taking into account the fact that domain-specific knowledge generally evolves and grows with time. Secondly, specialization also reflects the fact that individuals may develop a special interest or demonstrate talent in a particular aspect of a knowledge or functional domain (or both), which they may wish to pursue further. Thirdly, specialization is consistent with both economic theory (i.e., gains from trade) and strategic management theory (e.g., the resource-based view of competitive advantage) and yields benefits to both the client (high-quality, targeted services) and the professional (a financial premium and high reputational capital). Lastly, allowing young academics to elect to follow either a teaching or a research career trajectory is not only consistent with the foregoing discussion, it is also expected to lead to an improvement in the overall levels of quality in teaching and research in comparison with current levels. At present, academics are required to teach courses, although most lack any formal training in higher education pedagogics and didactical methods (*Hochschuldidaktik*), while their career advancement hinges chiefly on their research performance. These competing pressures and divergent requirements often result in sub-standard teaching and research outcomes, as well as frustrated and unhappy young academics. In the worst case, some individuals resort to fraudulent behavior, such as falsifying data or research findings, simply to satisfy the demands of their employer and to keep their career on track (*The Economist*, 2013). This author's recommendation for specialization at the individual level complements the recommendations of the *Wissenschaftsrat* and should go a long way toward ameliorating the negative outcomes observed when academics face pressures to provide both high quality research *and* teaching.

In addition to the opportunity to specialize at the beginning of their career, I argue – consistent with my previous line of reasoning - that professionals should also have a mid-career opportunity to specialize in management. As discussed previous in this dissertation, professionals (i.e., expert managers) are better able to evaluate the work of other professionals than are non-expert managers. Not only is this consistent with the view held by professionals themselves, but also reflects the credence goods qualities of knowledge-based services that render them difficult for non-experts to judge and value both ex ante and ex post. To this end, mid-career nomination or self-selection of qualified and motivated professionals to enter into a special educational program for preparation to assume management functions in higher education is foreseen.

Finally, and as with the established professions, maintaining certification should be contingent on the regular and ongoing completion of continuing education courses. These courses offer at least two important benefits: they ensure that professionals maintain their basic domain-specific and function-specific knowledge, skills and abilities throughout their working life and they ensure that professionals remain up-to-date on the state of the art in the profession.

4.2.3 First, Do No Harm: Professional Norms, Codes of Ethics and Sanctioning

In order to lend credibility and legitimacy to self-regulation, a code of professional ethics is required that should be comprehensive and explicit in the regulation of members' behavior. It should include sanctions for serious ethical breaches, such as research-related plagiarism and fraud (e.g., in data collection, data analysis, reporting of research findings, etc.), ethical breaches and negligent conduct in carrying out the teaching function, as well as negligence in carrying out the peer review function (e.g., in reviewing manuscripts submitted for publication). As discussed above, the appropriate level of punishment is to be determined and enforced by the profession's governing body.

A further professional norm that has an important governance function is an allegiance to the profession. In the academic context, this would be reflected in an allegiance to scientific inquiry and teaching excellence, rather than to a given employer (i.e., a university) or sources of funding (e.g., research grants provided by third parties, including the government, foundations and private firms).

Relatedly, the trusteeship norm is particularly salient for the academic community, reflecting the public service ethos characteristic of the professions (Hall, 1968; von Nordenflycht, 2010). As explained by von Nordenflycht, under the trusteeship norm, "professionals have a responsibility to protect the interests of clients and/or society in general" (2010: 163). Given that much so-called "basic research" is state-funded and, therefore, can be characterized as a public good, this norm is foreseen as being particularly instrumental in militating against opportunistic behavior. The development of such a norm will require some self-reflection by the academic community in order to clarify where it positions itself in the broader society. The result should, ideally, be reflected in a vision and mission statement formulated by its governing body. Concerning the latter, there should be a clear and strong link between professional norms and codes of ethics and the mission of the profession and its vision of its role in a society. As an example, the preamble to the American *Society of Professional Journalists'* code of ethics states that, "members of the Society of Professional Journalists believe that public enlightenment is the forerunner of justice and the foundation of democracy… Members of the Society share a dedication to ethical behavior and adopt this code to declare the Society's principles and standards of practice". [42]

[42] Society of Professional Journalists, *SPJ Code of Ethics* (1996).

4.2.4 Self-regulation, Peer Mutual Monitoring and the Profession as Institution

As already discussed in the first two papers in this dissertation, the chief appeal of the *profession* as *institution* lies in the variety of advantageous governance properties that is possesses. Chief among these is self-regulation via peer mutual monitoring. This key governance aspect of professionalization is particularly appealing for a number of reasons. Firstly, it is a tacit acknowledgment of the fact that professionals deal in credence goods, which places them at a unique advantage vis-à-vis non-experts; namely, consumers of their services and those who may wish to evaluate their work, such as non-expert managers. Secondly, and relatedly, it is the consensus of knowledge workers in general and professionals in particular that only other experts are able to adequately valuate their work. The significance of these first two points is underscored by a third point; namely, that titles have an effect on the interaction between title-holding individuals (equivalent to experts here) and non-title holders (equivalent to non-experts). Research conducted in the field of psychology has found that non-title holders attribute authority to title-holders and therefore tend to defer, unquestioningly, to the title-holders' will. This theory has been tested extensively, with the most surprising – and startling – evidence gathered in the medical context. In studies conducted at several different American hospitals, it was demonstrated that the reluctance of nurses - themselves highly skilled and experienced - to question the orders of doctors would have led to a number of egregious errors, many of which may have resulted in the death of patients. It was concluded that this reluctance of non-expert staff (or, at least, those who viewed their own expertise as being inferior to that of the doctor) to challenge the authority of the (expert) doctors (particularly when the doctors' orders were clearly erroneous) that accounts for a large number of errors in medicine administered to patients and, sadly, to an increased rate of patient mortality during hospitalization (Cialdini, 2007). Lastly, self-regulation and peer mutual monitoring are expected to produce the greatest governance benefits at the lowest cost – both in agency theoretic terms as well as transaction cost theoretic terms.

To summarize, the mandate to self-regulate is a clear reflection of the privileged social and legal status enjoyed by the professions, which accrue in large part from their unique, institutionalized governance features. Its legitimacy and credibility depend on the reliability of peer mutual monitoring, reinforced by professional norms and a code of ethics, both of which are established and maintained by a professional governing body. Taken together, these reinforce the reputational capital and social prestige that society attributes to professionals.

4.3 Two Approaches to the Implementation of the Professional Partnership Model

Following Boyne's (2002) example, I loosely apply Bozeman's (1987) framework, which examines organizations' relative publicness versus privateness in terms of their characteristics of *ownership*, *control* and *funding*, to structure the discussion of implementation and its (possible) consequences. By doing so, I implicitly and – at times, explicitly – acknowledge that university governance reform in Germany is a dynamic process in which the lines between public and private spheres are blurred and the interests of both are intermingled and undeniably affected by the process and its outcomes.

4.3.1 The models

Two prototypical organizational forms are foreseen: a hybrid model and a market-based model. In the hybrid organizational model, many of the existing university structures are maintained, albeit with major transformations occurring within those structures; namely, in how responsibility for operational management, organizational governance, strategy and financial accountability are assigned. In this model, the partnership concept is implemented in the German spirit of co-determination[43]; that is, while some decision-making requires consensus to be reached between the central university board and the professorial partnerships, much important authority and responsibility is devolved to the level of the professorial partnerships. In the market-based model, a more fundamental transformation in the structure of the university would occur, most notably with the "outsourcing" of the teaching and research functions to independent professor-entrepreneurs and professorial partnerships. Here, professors are no longer employees of the university. Rather, they contract at arm's length (i.e., via the market) with the university as providers of educational and research services. In this model, the partnership concept is introduced outside the scope of existing university structures, with individual professors acting as independent economic actors (i.e., the professor as entrepreneur) or else forming a general partnership with other professors and engaging in transactions with universities (and other institutions) at arm's length via the market. In the paragraphs below, the implications for ownership, control, funding and strategy that each model would imply are discussed in greater detail.

4.3.2 Ownership

Arguably the most important assets owned by a university are its tangible fixed assets; that is, facilities including buildings, laboratories, equipment, etc., and intangible assets, most notably intellectual property ("IP"), such as patents or copyrights created by its academic staff). The discussion of ownership will therefore focus on the control of and claims to the benefits yielded by these key assets.

In both models, the university would remain a public entity but could, for example, take the form of a holding company. The holding company would be comprised of several entities, the ultimate ownership of which may be public, private or mixed. There would be a "university board", responsible for overseeing the management and operations of the entire

[43] This application of co-determination or, *Mitbestimmung*, is not a one-to-one reflection of private sector practice; rather, it is intended to reflect the spirit of co-determination, adapted to the university context.

organization. In the hybrid model, decisions for organizational funding and strategy would be largely co-determined by the university board and the faculty-level partnerships, while in the market-based model, the university board would be ultimately responsible for all strategic and operational decisions and would contract with professorial partnerships and independent professor-entrepreneurs in the pursuit of its organizational goals.

In both models, the use of a real estate investment trust (or, “REIT”) is foreseen, which would own and manage university facilities. In order to ensure that the public interest is promoted, the state could be a controlling shareholder, owning directly and indirectly (e.g., via a public employee pension fund) a majority of the REIT’s shares. However, in order to raise the capital required to make much-needed investments in modern facilities, ownership may be sold to private investors or, likewise, bonds may be issued to private investors. Here different options are possible. For example, large blocks of shares could be sold to institutional investors, such as pension funds or private equity firms. Alternatively, shares may be sold to the broader investing public and subsequently traded on a secondary market. Again, consistent with public interest that the university represents, the return on investment would be low but stable, and could be marketed as “socially responsible investments”. Regardless of the ownership structure chosen, university facilities would be transformed from cost centers to profit centers by leasing these facilities to third parties - primarily to individual professor-entrepreneurs or professorial partnerships - for teaching and research purposes, but also to private entities, such as to students for extracurricular activities (e.g., campus clubs) as well as foundations (Stiftungen) and firms, to conduct events, research and the like. This has important consequences. Firstly, university property becomes an important source of revenues, which is expected to have a transformational effect on centralized investment planning and capital budgeting processes. Secondly, this shifts responsibility for cost management to the professors, who must set tuition fees in order to cover the costs of the educational and research services they provide to students, as well as generate a profit in order to earn a salary.

Another entity common to both would be a central administrative unit. This entity would have important managerial and administrative responsibilities vis-à-vis other constituent entities and external stakeholders. Chief among its functions would be the awarding of degrees to graduates on behalf of the partnerships, negotiating with third-party contractors, and in dealings with professor-entrepreneurs and professorial partnerships. This entity would be owned by the state and managed by the university board.

Finally, the ownership of intellectual property will vary between implementation models. In the hybrid model, an additional entity could be created to own, fund and manage IP assets. This implies that any IP, such as patents or copyrighted material, produced by professors working for the university would be the property of the university and not of the professor or professors who created. In the market-based model, any IP created by professors working in the partnership would be the property of the partnership, in the form of contributed capital by the partner or partners who created it. In this way, ownership and any claims to revenues generated by the use of the IP would be retained by its creators.

4.3.3 Control

The most crucial difference in the two approaches to implementation of the partnership concept turns on the issue of control, which lies at the heart of organizational governance. While the market-based model relies on market mechanisms to govern transactions between professors (as independent entrepreneurs or as professorial partnerships) and third parties (namely, universities), in the hybrid model, as the name implies, governance occurs at two levels within the existing university structure: between professors within a faculty-level partnership and between the individual professorial partnerships and the central university board.

As briefly mentioned above, the hybrid model, to a certain extent, is inspired by the uniquely German system of corporate governance – namely, co-determination. On this basis, much critical decision-making is either devolved to the faculty-level partnerships or is co-determined by the partnerships and the central university board. Key issues include: human resource management; university strategy, as it relates to the number, type and specific content of degree programs offered and to the financial planning that the strategy entails; as well as tuition fees to be charged to students. These issues will be discussed in turn below.

4.3.4 Human Resource Management

Given that education and research are knowledge-intensive services, labor is the key economic input. Since co-determination recognizes the critical role played by labor in the context of the firm, and grants generous rights and responsibilities to labor accordingly, so too does the hybrid model recognize the central role played by academic staff in the context of the university. As in the case of the firm, labor exerts perhaps its greatest influence on decisions relating to human resource management, policies, and practices. In this model, while professors are still technically employees of the university, all decisions related to the hiring, compensation, promotion and firing of academic staff is devolved to the level of the professorial partnerships.

Following the practice observed in the established professions, a tournament system of promotion is foreseen. This would imply that doctoral candidates[44] would compete for post-doc positions and junior professorships as non-partner members of a partnership's academic staff. The existing partners would determine promotion to full professor and, consequently, eligibility for partnership of non-partner academic staff. Entry into the partnership would require a unanimous vote of existing partners. Likewise, profit and loss participation (in

[44] This assumes that the doctoral dissertation is retained but reformed as an entry requirement into the profession, next to exams and any other forms of assessment.

other words, annual compensation) would be determined by agreement among the partners, while the administration of pay would be handled by the university administration, who is responsible for collecting (while not independently setting) tuition fees and dispersing payments. A crucial question to be addressed in the implementation strategy of the hybrid model is that of capital contributions. In the private sector – and, therefore, as foreseen ion the market-based model - capital contributions are often required of new partners, in order to reinforce their commitment to the partnership and to be consistent with the unification of ownership, management and operations – the hallmark of a partnership, as an organizational form, which underlies its strengths as a mode of governance. However, many professional service firms, such as law firms, have two classes of partners: equity partners and salary partners (Richmond, 2010). While equity partners participate in the profits and losses of the partnership according to their allocable share, salary partners simply receive a fixed salary and, possibly, a performance-based bonus. Voting and other key decision-making rights will likely also differ and will be stated in the partnership agreement (Richmond, 2010). In the hybrid model, the two-tier approach is foreseen, in which more senior professors are equity partners and junior professors are salary partners. In lieu of a cash contribution, an equity interest in the partnership would most likely take the form non-capital asset contributions, such as intellectual property (i.e., patent and copyright rights). This is also consistent with the proposal of equity partnership for senior academics, who are more likely to have created some intellectual property, which may be contributed. However, this does not exclude younger, exceptionally accomplished professors from being eligible for equity partner status. Lastly, the scarcity of membership coupled with the prestige of the position would create strong performance incentives for aspiring entrants (Cialdini, 2007).

Although as employees of the university, professors would still be public employees, the tenure system would be scrapped. Instead, the right to remain a partner would be subject to revocation by a vote of the other members of the partnership. Grounds for expulsion from the partnership would include: consistently poor performance; financial malfeasance; ethical violations or other breaches of professional norms; and, in the worst case, the loss of professional status as evidenced by censure by the professional governing body.

While key human resource management tasks are devolved to the level of the partnerships, the central university board may appeal decisions if they believe that the decisions were made without just cause. As a basic example, if a professor is voted out of his job by his peers for poor performance, yet the university board suspects mobbing, sexual harassment or any number of other types of unethical behavior is at play, they may intervene in the decision making process.

Human resource management in the market-based model is essentially the same as in the hybrid model, with the exception that the university may not intervene in the decisions made by the professorial partnerships, which are private economic entities unrelated to the university.

As discussed previously in this dissertation, the governance features of the (professional) partnership are far more consistent with the defining characteristics of knowledge work and knowledge workers. To briefly reiterate these, it is based on peer mutual monitoring by fellow experts, it is conducive to a collegial work environment, rather than relying on a strict hierarchy, and it allows individuals to exercise autonomy in preforming their work, which is crucial, since much knowledge-based work is non-routine and non-standardized. In addition, to these advantageous governance features, it is further argued here that the professional partnership is more provides superior incentives in the academic context than either of the current hierarchical models in use: the traditional model of state bureaucracy and the tenure system or the corporate model of management and governance.

As already mentioned, the partnership would replace the tenureship system for academic staff. Even without the formal professionalization of academics, the partnership context would provide important positive incentives to enhance the performance of professors. Firstly, the current system of one, tenured professor (*Lehrstuhlinhaber*) would be supplanted by a group of equally qualified professors working together as partners engaged in mutual peer monitoring. Given that non-expert managers have a difficult time adequately evaluating the work of expert staff, the current situation has resulted in an essentially "feudal" system within universities in which each Chair (*Lehrstuhl*) represents an autocratically ruled fiefdom. This severely undermines accountability and inherently compromises attempts at introducing performance incentives. The contingency of pay on the overall performance of the group (via the partnership agreement) and the threat of expulsion from the partnership for consistently poor performance is more in line with both prospect theory and evidence on intrinsic motivation. These will each be discussed in turn.

The key insight offered by prospect theory is that, in general, an individual is much more motivated by a fear of loss than by a promise of gain. Empirical research has born this out, with the seminal finding that individuals rate the disutility they experience from losing $100 as approximately *twice* the utility they experience from gaining $100 (Thaler, Tversky, Kahneman, & Schwartz, 1997:648; emphasis added). Furthermore, individuals perceive the relative value difference between gains (losses) of $10 and $20 to be greater than between gains (losses) of $110 and $120 (Tversky & Kahneman, 1981: 454). The latter suggests that even a small, „symbolic“ capital contribution by a professor could have a potentially high impact on performance, given that they have placed their own private capital at risk. In the current system, there is simply no risk of loss whatsoever, given that professors are public employees shielded by the tenure system. They have lifetime employment guaranteed, regardless of whether their performance improves or declines.

The insights offered by prospect theory are, in a discussion of incentives in the public university context, complemented by research on the interaction between motive dispositions and forms of incentives. Employment in the public sector has traditionally been associated with job security, career advancement via a merit system and salary protection based on a system of collective labor bargaining (Chen, 2012). While an elaborate system of rules and formal procedures is seen as decreasing managerial flexibility and autonomy in the public sector (Chen, 2012), which may be viewed as a drawback, at the same time public sector managers have been shielded from the market pressures and individual accountability for organizational performance that is faced by managers in the private sector. Public universities and, specifically, professors have been no exception.

The recent introduction of performance-based management techniques adopted from the corporate model of governance was intended to change this bureaucratic culture by stimulating professors to think and act more like private sector managers. A recent meta-analysis by Weibel, Rost and Osterloh (2010), who researched relationship between individual performance and performance-related pay in the public sector, found that intrinsic motivation was greatly reduced by the use of performance-based pay. These authors analyzed the results of forty-six experimental studies and concluded that intrinsic motivation accounts for much greater performance by public sector managers than does extrinsic motivation (specifically, the promise of a financial reward). Relatedly, a 1982 survey of US federal government and private sector 'middle managers'[45] revealed clear differences in reward preferences between the two groups (Rainey, 1982). Specifically, the government managers rated the importance of financial reward as a career goal lower than did their private sector counterparts and rated the importance of "helping other people" and doing work that is "worthwhile to society" higher than private sector managers (Rainey, 1982: 290). The work of Weibel, Rost and Osterloh (2010) tends to corroborate Rainey's much earlier findings.

This leads to a further criticism of the use of corporate governance tools like performance-based pay by those who emphasize the social role played by public sector organizations. These critics argue that financial goals are frequently at odds with social values, such as equity and access, which public service organizations should prioritize. This argument is particularly salient for such merit goods as education and health care. The normative disagreement about the role played by public sector organizations in society has galvanized political and philosophical opposition to the adoption oft he corporate model, but with a notable lack of viable alternatives on offer. Given that professors can be described as knowledge workers, with all of the associated characteristics, and as intrinsically motivated public sector workers, professionalization is an incentive-compatible mode of governance that should promote both the enhanced performance of professors and the broader social interests served by education and basic research. Indeed, both theory and evidence suggest

[45] "A 'middle manager' was defined as a person below the level of vice-president or assistant agency director, with at least one level of supervision below him or her" (Rainey, 1982: 292).

that current experiments with the corporate model of performance-based compensation will not reap the expected benefits and may even reduce motivation and performance.

4.3.5 Financial Planning

Given that people are the foundation of knowledge-intensive firms, it should come as no surprise that labor costs, and specifically those related to the academic staff, are the main cost driver in a university. Consequently, the performance and efficiency of academic staff are key concerns. Before the implications of reform following the partnership concept are discussed, brief consideration is given to a comparison of the general approach to budgeting in public versus private sector organizations, in order to emphasize the significance of the subsequently discussed reforms.

4.3.5.1 Traditional Budgeting in the Public Sector

Budgeting is an important function of an organization's management, which runs parallel and complementary to the other key managerial functions of planning, executing, communicating, controlling and evaluating. It also provides the basis for organizational governance by assigning responsibility and enabling the measurement of outcomes (e.g., responsibility accounting). In the context of planning, organizational goals (be they strategic, tactical or operational) - once formulated - must be expressed in financial terms. While these goals may not necessarily be financial in nature[46], realization of the goals will require the use of resources, the value of which can be expressed in monetary terms.[47] Expressing organizational goals in financial terms by (1) identifying the resources required in pursuing those goals and (2) making reasonable estimates of the value of those resources expressed in monetary terms, is the essence of budgeting.

In public organizations, operational budgets consist primarily of the estimated expenditures related to forecasted service provision. Since these organizations are primarily concerned with issues of equitable accesses and affordability, rather than profitability, accurate demand planning and pricing strategy are considerably less relevant. Furthermore, these goals are often difficult to quantify and objectively measure. This problem of goal ambiguity distinguishes the public sector from the private sector (Boyne, 2002; Chen, 2012; Fottler, 1981; Rainey and Bozeman, 2000).[48] It is widely accepted in the public management literature that public sector managers must grapple with "vague, hard-to-measure, multiple, and conflicting goals" (Rainey and Bozeman, 2000: 452) that are "derived from the value-laden nature of public service" (Chen, 2012: 440) and are therefore difficult to quantify and

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[46] As an example, organizations such as Greenpeace and the World Wildlife Fund might have the goal of reducing the number of wild animals killed by poachers in a given year.

[47] With reference to the example provided in the preceding footnote, species preservation will require the use of vehicles, facilities and human resources, to name but a few. The value of these required resources can be expressed in monetary terms.

[48] For example, Fottler (1981) attributes this to "conflicting political pressures from various constituencies" (5).

measure. Consequently, there are no standardized or otherwise common toolbox of performance management indicators or techniques in the public sector that are comparable to the extensive repertoire used to measure the financial performance of firms in the private sector. This has created much consternation for those who try to adapt the corporate model to the public university setting and has provided endless fodder for their critics. Earlier work in the comparative study of public and private management practices addressed the difficulty of measuring outputs in public sector organizations, which probably accounts for the traditional orientation toward input planning, as was the standard practice at German public universities until very recently (see Fottler, 1981, for a review of the literature). In addition, public organizations may face resistance to scaling back or discontinuing inefficient or ineffective services due to political pressures from (small) constituencies who benefit the most from these services (Fottler, 1981).

To summarize, the budgeting process in public organizations does not involve the estimation of revenues or profit planning calculations and cost estimates are based largely on trends in historical demand. In essence, operating budgets are basically cost estimates, with final decisions resulting from negotiations between politicians and public organization managers, neither of whom are directly involved in service provision.

4.3.5.2 Traditional Budgeting in the Private Sector

In private sector firms, a *master budget* is prepared on an annual basis. The first step in the preparation of the master budget is always the preparation of the sales budget. All other budgets are dependent on sales budget figures. The sales budget reflects management's estimate of forecasted consumer demand based on its chosen pricing strategy. The result is the forecasted sales revenue for the next year. This underscores the key role played by product-market competition in organizational planning and strategy formulation. Based on these figures, estimates can be made of the related costs that will be incurred in order to achieve that level of sales volume. Combining the sales and expense budgets, budgeted income for the next period can be calculated.

These operating budgets are the result of cost-volume-profit analysis (also referred to as "breakeven analysis"), a planning technique that requires managers to relate sales volume and pricing strategy to the firm's cost structure. Here, costs are differentiated based on their relationship to the level of business activity; some costs vary in direct relation to the level of activity (i.e., variable costs), while other costs are remain unchanged within the firm's operating capacity (fixed costs). The latter costs reflect the allocation of a reasonable portion of the costs of non-current assets, such as property, plant and equipment, to each accounting period spanning the asset's useful life. This "matching" of costs with revenues reflects a central purpose of accrual accounting; that is, that the cost of a resource must be matched with the benefits it yields. Firms undertake this matching of costs and benefits in order to, among other things, measure and evaluate the efficiency with which resources are being utilized.

To summarize, budgeting in private sector, for-profit organizations represents an essential part of the management function. Budgets require mangers to express in financial terms the organizational goals that they have established. Responsibility accounting allows managers to assign accountability for the implementation and realization of steps required to achieve goals and offer a way to readily measure achievement. In this way, budgets provide backbone for the evaluation and controlling processes. Finally, the use of accrual basis accounting allows for a more accurate assessment of performance, to the extent that it seeks to match expenses with the revenues that they produce, rather than simply report on the cash flows of the period.

4.3.5.3 Budgeting and the "Socially profitable" Partnership – The Hybrid Model

In the hybrid organizational model, cost management and the setting of tuition fees would be co-determined by the faculty-level partnerships and the central university board, with a large degree of autonomy in decision-making – and the related accountability for decision outcomes – devolved to faculty-level partnerships. By devolving to professors the responsibility of calculating the cost of providing education, it increases accountability and creates incentives to enhance the "value for money" of education and research services provided, rather than the current system that leads to budget padding and "December fever"- reckless end of the year spending to ensure that a Chair's budget is not reduced. First, however, professors would be required to estimate future demand for their various degree programs, in order to come up with reasonable cost estimates. This will require them to think about the level of quality of service they will provide and will therefore also drive their tuition or pricing strategy. Last but not least, professors will also have to engage in profit planning, in order to ensure that they earn a minimum desirable salary. The latter two steps underscore the relevance of formal professionalization and the governance functions of the trusteeship norm and the service ideal, since they oblige professors to balance their own, personal financial interests with the interests of their (potential) students and other clients (e.g., contract research clients, such as government agencies).

The setting of tuition fees is therefore a key aspect of the proposed partnership reform, as it supports the internal governance mechanisms underlying the partnership model, is supported by the governance features of formal professionalization, and features the added external governance of students as fee-paying consumers who "vote with their feet" and make their study choice based on the cost and quality offered by a given university faculty[49]. However, it represents a paradigm shift away from traditional input planning and toward a

[49] This is consistent with recent findings by Fischer, Bruckmeier and Wigger (2013) that German students are more interested in the reputation of a specific faculty and/or degree program than the reputation of a university as a whole.

new path of sustainable and socially responsible provision of public education, in which the cost of education services are not externalized to the broader society but are born by those individual who receive the services and consequently enjoy the (lifetime) benefits of an *investment* in their education (i.e., higher wages and a better quality of life than those with less or no higher education).

Since costs are largely devolved to and, therefore, incurred by the faculty-level partnerships, they must set a tuition fee for their programs that covers their costs and generates a profit. The latter can then distributed to the partners as per their partnership agreement in lieu of a fixed salary, as has been traditionally the case. Given that the university, and not the partnerships, own the non-current assets that are used in the provision of the university's educational and research services, the university is involved in the setting of tuition fees insofar as the partnerships require information about the value of these assets in order to include a reasonable portion of their costs as an expense in the calculation of the tuition fees. In addition, the university may charge the faculties fees for administrative services, such as processing student data, processing tuition payments, and distributing monthly payments to professors, among others. These charges will necessarily be incorporated in the partnership's expense budgets and figured into the final setting of tuition fees and estimated profit calculation.

Considering the consequences for each partner-professor's salary, the incentive to pay careful attention to cost management and to be actively involved in the pricing strategy for tuition fees is high. It is also future-oriented, in that the related level of education and research quality will either create or destroy the reputational capital of the partnership and therefore have a bearing on the future earnings (potential) of all partners involved.

4.3.5.4 Budgeting and the "Socially profitable" University – The Market-based Model

In the market-based model, universities contract out educational and research services to professor-entrepreneurs and professorial partnerships. With this approach, the university sets tuition fees itself, based on a cost calculation that includes the service fees paid to the professors, whom they engage in the provision of education services for their students, and a reasonable allocation of the cost of the facilities used. Any residual income would be retained by the university, to dispense with as the university board sees fit (e.g., for student scholarships, to fund future investments in facilities, etc.). This provides for a great deal of flexibility in terms of both operational and strategic planning. For example, if the university wants to develop a new degree program, it may contract a professorial partnership with expertise in the relevant field for consultation on program development. It may then hire a number of individual professors or else a diversified professorial partnership to teach the individual courses belonging to the program. As in any contractual relationship, and especially one involving credence-type goods, the university may initially enter into only short term contracts in order to verify the quality and value for money of the contracted professors before eventually entering into longer-term contracts. By retaining control over both university facilities and the setting of tuition fees, the state can ensure that universities remain responsive to key stakeholders while, at the same time, utilizing the flexibility in managerial decision-making to exploit the benefits of the market.

As is nowadays the case with many public services, the university would advertise a tender that would serve as the bases for the competitive bidding process between partnerships (and entrepreneur professors), who could respond to a tender for the teaching of individual courses all the way through to the development of curricula and course design for entire degree programs. This would likewise be the case for the conduct of research projects.

At the partnership-level, professorial partnerships and professor-entrepreneurs are private economic actors who are responsible for their own financial management. Working capital needs (including salaries) would be provided by the revenues generated from contracting with third parties – namely, universities and government agencies, but also private organizations – to provide educational and research services. Any larger capital requirements related to, for example, the financing of long-term investments, would most likely take the form of a private loan. To the extent that the government saw an interest in subsidizing these independent academics, at least in the early years in which the model is being phased-in, special funds could be set aside to provide debt financing.

4.3.6 Strategic Management

As already mentioned, university strategy in the hybrid model would be co-determined by the university board and the faculty-level partnerships. Given that professors are still public employees of the university and given that any strategy proposed by the university board requires the consensus of the professors, the university has limited latitude in effecting (radical) change. However, this is consistent with the governance ideal underlying co-determination. So, while the partnership concept can be feasibly implemented within existing university structures and can be done so in a way that is consistent with traditional German labor relations, it comes at the cost of organizational responsiveness and, ultimately, competitiveness. On the other hand, it can be viewed as an improvement on the current situation, to the extent that it does allow for strategies that enhance university competitiveness, albeit limited in scope, in areas such as quality and between having a teaching or a research focus. To this end, it can be viewed as consistent with the more modest policy recommendations of the *Wissenschaftsrat*. On a more general note, the proposal here for the creation of a REIT offers greater ability to finance aggressive improvements to and expansion of university facilities, in support of an “excellence” strategy seeking to attract top professors and students, the latter being more willing to a premium tuition fee for premium educational services and facilities. This strategy can, however, be more fully exploited in the market-based model, as will be discussed next.

The market-based model offers the most flexibility with respect to strategic and financial management for both universities and professors. The advantages for each will be discussed in turn, starting with the university perspective.

Firstly, the implementation of the market-based model and its consequences for university structure, management and governance, allow for a continuum of organizational change - from incremental to radically transformational. This represents a true paradigm shift away from the process of "disjointed incrementalism" (Lindblom, 1979: 282) that has historically characterized planning at the level of the individual organization in the public sector.

Secondly, liberation from the constraints of the tenure system implies that the university is free to contract on any basis it wishes – from short-term to long-term, for individual courses to multi-year teaching and research engagements – with individual professors and professorial partnerships in order to achieve its strategic goals. This flexibility in human resources allows for more aggressive strategic management. In this way, the university may adopt proactive organizational behavior, characteristic of the private sector, where successful strategies (innovative strategies in particular) tend to be proactive. This represents a fundamental change, to the extent that strategy in public sector organization tends to be reactive, responding to changes in the external (political) environment (Ring & Perry, 1985).

Thirdly, and as already discussed above, the benefit of a REIT can be more fully exploited in the market-based model. Flexibility in making investment decisions – and the financing strategy to support them - concerning the type of facilities offered and the quality of those facilities enables the university board far greater latitude in determining a generic strategy orientation. For example, a university may choose a generic "cost leadership" strategy. Such a strategy would imply opting for low to intermediate quality facilities, contracting with professors who have a moderately good reputation, whose services can be secured for a modest fee, all of which would then be reflected in a low to moderate tuition fee. On the other hand, the university may opt for a generic "premium" or "excellence" strategy, which would imply aggressive improvements in university facilities in order to attract top professors and students, the latter being more willing to a premium tuition fee for premium educational services and facilities. Lastly, universities could decide whether to pursue a generalist or a specialist strategy, in terms of the types and number of subjects and degrees offered, as well as in terms of either a teaching or a research orientation.

Likewise, the market-based model offers a number of advantages to professors. Firstly, professors are not bound to one employer; rather, they are free to contract with as many universities and other interested parties, as they like. And while they lose the steady salary and job security of the tenure system, they gain the ability to influence their own earnings by adjusting their efforts and qualifications accordingly.

Secondly, professors would enjoy the same latitude in their choice of strategy as universities. They face the first decision of whether or not to remain self-employed entrepreneurs or to join other academics in forming a partnership. They can choose, on an individual or partnership basis, a generalist or a specialist strategy, offering teaching, research or consulting services, or some combination thereof. Professors could furthermore exploit the benefits of formal professionalization, by profiling themselves based on their formally recognized and certified set of competencies.

Thirdly, professors could exploit new revenue streams offered by recent technological developments. Not only could they earn service fee revenues (for teaching and research services rendered), but they could also earn merchandise revenues, for example through the sale of textbooks or video recordings of lectures. Finally, since they (or their partnership) would own any intellectual property they may develop, they could also earn royalty revenues from licensing the use of it.

In summary, the market model offers a number of critical advantages compared with existing modes of governance, as well as over the with the hybrid mode of governance, introduced above. It offers both the university as well as academics greater flexibility in strategic, financial and operational management decisions, while maximizing governance benefits to all parties involved.

4.3.7 Funding

In the following paragraphs, some recommendations for reform of university finance are sketched out that are seen as complementing the proposed governance reform. However, since it is not the intention of the author and therefore not the purpose of the current paper to delve deeply into the issue of public university finance reform, the recommendations will only be briefly explained and discussed.

Although ownership of universities may remain largely in public hands, both models allow for increased funding from other sources, including private parties[50]. While both models allow for continued state funding, the manner in which funds - and, in particular, state funds - flow to the university would differ substantially from the manner in which it is currently and has traditionally been done. These two fundamental changes in university funding will be discussed below and their consistency with the partnership model of university governance discussed.

The first fundamental change involves the sources of funding. In order to provide greater incentives for improved capital budgeting, universities should be encouraged to seek more

[50] As was briefly mentioned above and will be addressed in more detail in this section, the option of raising capital for long-term investments in buildings, facilities and equipment buy selling equity interests will also have implications for ownership and control.

funding from private parties. This would include, but not be limited to, the sale of bonds and equity, fundraising from alumni, and philanthropic endowments. Starting with bonds, the sale of bonds to private investors will make central university management accountable to a broader and more inclusive group of stakeholders and will also require them to cooperate more closely with internal stakeholders (i.e., professors) in the planning of capital investments. Next, equity may be considered, but is foreseen as being limited to the REIT vehicle discussed above. The third and final fundamental change concerning funding is reflected in the raising of capital via fundraising. Here, two options come immediately to mind: fundraising from alumni, and philanthropic endowments. The increased need for universities to rely on fundraising in the future was mentioned by a number of panelists and keynote speakers at the Hanns Martin Schleyer-Stiftung symposium on higher education reform held in Frankfurt am Main on November 28, 2013. The chief strength of this source of funding is that it most-closely links education and research quality with funding. In the case of alumni donations, there is a clear connection between the quality of education that students receive and their ability and inclination to donate. Specifically, this assumes that well-educated graduates are more likely to be employed and are more likely to earn more, on average, than non-graduates or graduates of a lower quality program. Consequently, such graduates are better able to make charitable contributions to their alma mater and will likely feel more inclined to "give something back" to the university that has given them so much. Concerning philanthropic endowments, it is often the case in the US, for example, that when wealthy alumni die, they leave an endowment to the university from which they graduated. Corporations may also endow a university with which it often cooperates on research or other endeavors.

The second fundamental change will be reflected in the flow of funds. Concerning state funding, funds are foreseen to flow to universities in an indirect manner, in contrast to the direct, "global" budgets that universities now receive. Specifically, the largest pool of state funds would be set aside for student loans and vouchers. In keeping with the German tradition of (largely) free access to education, students would receive a voucher of a standardized amount that could be used to pay tuition fees at any university of their choosing. Should the student attend a degree program that charges a tuition fee in excess of the standard amount, additional funds could be borrowed to cover these additional costs. Concerning alumni donations and endowments, the extent to which contributions are targeted to a specific purpose or not will be determined by the university itself and will likely reflect the wishes of major donors. This is generally the approach taken by well-endowed private universities in the United States.

4.4 Summary and Conclusion

The purpose of this chapter was to offer a roadmap for the implementation of the partnership concept in the context of German public university reform. As a prerequisite, the formal professionalization of academics was recommended in order to strengthen both of the proposed approaches to implementation of the partnership model, regardless of which one might ultimately be selected. The discussion of the implementation of the partnership concept was structured in terms of its implications for university ownership, control and funding. Special consideration was given to the management functions of financial and strategic planning.

On balance, both models promise improvements over the traditional model of the public bureaucracy as well as the newer corporate-based approaches to management and governance. The hybrid approach to implementation is more consistent with the German institution of labor relations; namely, co-determination. It also requires fewer and less far-reaching adjustments to existing university structures. Overall, the market-based approach was demonstrated to offer the most advantages for both universities and academics in comparison to all other management and governance regimes.

While historically the professional partnership has proven to be the most widely adopted organizational form among knowledge-intensive firms in the private sector, it remains to be seen whether or not it will gain sufficient institutional legitimacy within the academic community to warrant its implementation. It is the sincere hope of the author that this will eventually happen.

5 Conclusion

As already mentioned, a chief aim of the dissertation was to stimulate reformers to think beyond the limited scope of the corporate model of governance in the discourse on public university reform in Germany. In this vein, questions were posed, such as "Does it make sense to run a university like a firm?" and "Are there alternative, private-sector models of management and governance more appropriate and effective for the university context than the corporate model?", questions to which answers were sought. To this end, the chief contribution of the dissertation was threefold. Firstly, starting at the broader, abstract level of knowledge work and knowledge workers, arguments drawn from transaction cost theory were systematically and coherently made that lay the foundation for two alternative, yet complementary, modes of governance borrowed from the private sector: the professionalization of certain knowledge workers (based on a proposed typology of the knowledge dimension of human assets) and the partnership as an organizational form. Namely, the argument was made that partnerships contribute to lower transaction costs than can be achieved by either markets or hierarchies in the governance of knowledge-intensive service transactions for a number of reasons. Firstly, lower information asymmetries between expert-partners reduce the probability that opportunistic behavior can be successfully pursued. Secondly, the unification of ownership, management and operations in the persons of the partners contributes to a highly effective system of internal mutual peer monitoring. A chief outcome are lower transaction costs, in comparison to the more costly and less effective option of market-based contracting, due to the inherent difficulty faced by non-experts in monitoring and controlling transactions in knowledge-intensive, expert services. Internal governance of experts by experts should also be less costly and more effective than traditional, hierarchical internal firm governance by non-expert "professional" managers, particularly where operations are characterized by the provision of non-standardized, non-routine knowledge-intensive services. In summary, it is argued that the partnership is an organizational form that is more consistent with institutional features and governance mechanisms of professionalization. When combined, complementarities in the two modes of governance are expected to create synergies that optimize the governance effects of each and minimize total transaction costs.

Secondly, an agency theoretic approach was taken in making a critical assessment of the corporate governance and its application in the university context. In response, the professional partnership was proposed as a superior alternative, in that it does not require the construction of an artificial agency relationship in order to apply the corporate model and that it is more robust and institutionally consistent with the academic context. Concerning the latter, it has been shown that the key governance characteristics of the professional partnership are far more consistent with the academic work environment and the nature of academic workers than is the corporate model of governance. Secondly, the decentralization and devolution of key decision making authority to the level of individual university faculties that the model advocates is much more in line with the spirit of the NPM reform initiative and with historical university tradition in Germany than the corporate model. In addition, such an approach to university reform restores the historical trust in and freedom accorded to the academic profession and avoids controversial corporate governance instruments, such as performance-based pay, which, as research suggests, may prove ineffective in the university context. In this last respect, is much more likely to be accepted by both academics and the broader public than the corporate model.

Lastly, a roadmap for implementation of the partnership concept in the context of German public university reform was offered. As a prerequisite, the formal professionalization of academics is recommended in order to strengthen both of the proposed approaches to implementation of the partnership model, regardless of which one might ultimately be selected. The discussion of the implementation of the partnership concept has been structured in terms of its implications for university ownership, control and funding. Special consideration has been given to the management functions of financial and strategic planning.

On balance, both models promise improvements over the traditional model of the public bureaucracy as well as the newer corporate-based approaches to management and governance. The hybrid approach to implementation is more consistent with the German institution of labor relations; namely, co-determination. It also requires fewer and less far-reaching adjustments to existing university structures. Overall, the market-based approach was demonstrated to offer the most advantages for both universities and academics in comparison to all other management and governance regimes.

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