

New Public Management Reform and Research at Universities in the Netherlands and the United Kingdom

1.1 Problem Statement

This study will relate different approaches of external governance to different approaches of internal governance of universities and explore its influence on the university research capacity. Given the context of overall public sector reform with a prevailing ideology of new managerialism the general problem of the thesis is posed as follows:

What is the influence of the university organisational management influenced by the new public management reform on knowledge production at universities' basic level?

The sub-questions of the study will be:

1. Which differences in internal governance in universities can be observed under the new public management reform in higher education and research?
2. What are the effects of the different organisational management on certain dimensions of knowledge production at universities' basic units?

1.2 Study Objectives

Following the problem statement, two major study objectives can be put forward:

1. To relate new public management reform in higher education and research to the internal governance and organisational management practices at universities
2. To provide knowledge about the influence of different organisational management on the research function of universities.

1.3 Preliminary Hypotheses

We propose the following preliminary hypotheses:

1. New managerialism influences the teaching research nexus. It increases differentiation between teaching and research at universities.
2. With the priority setting from political actors as well as organisational management, problem choice in science becomes more driven/affected by external users rather than self-driven research problems.
3. With the value-for-money logic and an emphasis on cost and returns, researchers tend to stay within the mainstream of research rather than to be innovative.
4. With client orientation and a new focus on research sponsors, assessment of targets and outputs under new managerialism, output preferences shift towards more applied research and a multiplication of audiences.
5. If there are many providers of resources for research, then the organisational management has less effect on a research unit.

1.4 The Theme: major concepts, link to higher education and research

The New public management (NPM) debate is a part of a broader debate on the shifts in governance and the changing modes of coordination. In order to present the overall context of public reforms we introduce the other two broader issues first, such as the shift in governance and the modes of coordination.

1.4.1 Shifts in Governance

To start with, we will sketch different conceptualizations of governance which will allow us to locate the definition to be employed in the paper. In our understanding, the concept of governance encapsulates a broad range of interpretations. In general, governance is

usually seen as the lines of authority within an organisation or system (Bleiklie 1994; Dale 1997; De Boer 1996; Jessop 2000; Mayntz 1998; McGinn 1992; Rosenau 2000).

Mayntz (1998: 1) distinguishes between three meanings of the concept of governance. The first defines governance as governing by a political authority. Governing and governance have been used synonymously as “steering actions of political authorities” until the 1980’s. The second meaning developed as a more general concept, where governing takes place in and by networks, which could be both public and private. The third meaning is even more general, which encapsulates the previous two as sub-types and defines governance as a form of social coordination, which refers to different ways or modes of coordinating individual and corporate actors.

In higher education and research, all three definitions of governance are apparent. When looking from the systems point of view, higher education and research governance traditionally have been conceptualised as “steering”. This implies the ways in which coordinating institutions, such as the state, intend to influence or control a higher education system in such a way that preferred decisions will be taken and actions will be realized (Maassen 1998). Steering corresponds with the first definition of governance, namely, “the process aspect of government.” (Mayntz 1998)

However, governance can also be interpreted as different actors controlling higher education and research. For example, according to Dale, governance is “the control of an activity by some means such that a range of desired outcomes is attained not only by the state, but can be performed by a wide variety of public and private, state and non-state, national and international, institutions and practices.” (Dale 1997: 274) This interpretation corresponds to the third definition of governance.

Finally, concentrating on the coordination mechanism of education institutions, the World Bank Task Force on Higher Education proposes that “governance indicates the formal and informal arrangements that allow higher education institutions to make decisions and take action.” (WB 2000) It distinguishes two kinds of governance, internal

and external. The first, internal governance, refers to the lines of authority within organisations whereas the latter refers to relations between individual organizations and their supervisors. In other words, while external governance focuses on the system level or the external governance of organisations, internal governance addresses the co-ordination within the organizational level. Seemingly, this corresponds to the third broad definition, that of social coordination, since it implies both authority within an organisation as well as governance by different actors, which are external to the institution, but not necessarily governmental.

For the purpose of this research, *governance* is understood as external and internal lines of authority and the co-ordination mechanism for decisions and actions in a higher education system. It corresponds to what is understood by the Task Force as external and internal governance (Ibid.).

The governance debate has been elaborated by Mayntz' (1998) which gives a summary of the development of political governance theory. It will lead us to the more background debate on the different modes of coordination.

She distinguishes some major paradigms of political governance and argues that they have been developed by adding certain perspectives. At first the paradigm adopted a top-down perspective and was concerned with policy planning, development and implementation – the traditional stage heuristic of the 1960s to 1970's. Later on, a top-down approach was complimented by bottom-up processes of adhering to policy measures by their target groups, which gave insights into policy effectiveness conditions. However, later developments of the paradigm compromised the major assumption that the state is controlling the society. Thus, alternative societal governance forms, such as market principles and horizontal self-organization came into debate as alternatives to hierarchical political control. Here the mixed private-public policy networks gained recognition as a different kind of negotiation system. The 1980's saw a rise of the problem solving capacity of networks and societal self-regulation.

Thus, the major propositions of the political governance paradigm is that the role of the state is transformed and the importance of other public and private actors in policy networks is growing. In other words, hierarchical control goes together with cooperative and horizontal forms of societal self-regulation in the public system.

1.4.2 Modes of Coordination

This makes us reflect on an important background debate on the different modes of coordination within and outside organizations, such as hierarchy, market and networks. According to (Frances 1991) they are “the three basic regulatory principles around which the social practices of organisations are structured are called the modes/forms of coordination”. (p.2) Here the coordination implies the bringing into a relationship otherwise disparate activities or events. The purpose of such principles is to generate patterns of internal and external social relationships. (Ibid. 5)

The three forms are different from each other. Hierarchy involves the overt operation of relations of superordination and subordination in the process of coordination. (Frances 1991) It usually uses administrative means to achieve coordination. According to (Lindblom 1977) authority is an ancient control mechanism. A pyramidal authority that is called bureaucracy can be seen as an example. Markets, on the other hand, coordinate “automatically” through the self-interest driven, motivated and profit-maximizing individuals. The coordination takes place via the “guiding hand” of the market exchange, where decision-making is supported by the price information. Here the process of selection is important, in other words, competition determines the results. Corporate sector can be an example. (Frances 1991) The last, but not least form of coordination is through networks. They are seen as a “flat” mode of coordination with the major idea of linking together informal relationships between equal social agents and agencies, that are coming from “cross-cutting chains of social, political and economic relationships” (Ibid. p. 6) The most important attribute of a network is cooperation and loyalty – therefore, the sustaining of trust within and between networks is highly important. Professional networks can be seen as an example.

Initially, this debate was concentrated on the first two forms of organization, hierarchy and market. Coase (1937) maintains, that there is a sharp delineation between market and hierarchy and sees them as a two fold typology. (Bradash 1991) argues that such typology is misleading since market and hierarchy empirically are usually mixed up and that “combinations” help the formation of collateral social structures. (p. 274) Even in earlier writings, Lindblom (1977) underscores, that the distinction between market systems and administered systems (hierarchy) is not a clear-cut case. (p. 12) This critique brings us to the developments in the governance debate, where the similar conclusion is reached – the hierarchical control goes together with the horizontal mechanisms of self-regulation.

Since the above developments are not linear and the dichotomy of market and hierarchy is not mutually exclusive, then it is not that easy to draw a line and state that there is a decreasing public reform emphasis on hierarchy towards market, since there can be different developments and in different directions at different levels. For example, in new public management reform, the state decentralizes public services by privatizing them. (OECD 1995) At the same time, the same services might be privately managed with more hierarchy within the service provider organization. Therefore, while exploring the new public management reform, a starting point will be the changing modes of coordination and shifts in governance at different levels in a particular service sector, notably, higher education and research in order to get a clearer picture of the overlaps between the three of them.

1.4.3 New Public Management

With the fiscal crises in the late 1970's and the early 1980's in the welfare states, there was a rising pressure on public spending on the public service sectors, such as social security, health and education. Since then, a debate started on the role and importance of public management. Management ideologies and practices used in public service organizations have been changing from bureau-professionalism (Mintzberg 1983) to the adoption of the forms of management that developed in the corporate sector. According

to Pollitt (1993: 49), managerialism is “a set of beliefs and practices” with the major assumption that better management will solve economic and social problems. There is an understanding that the better things are organized, the higher is the likelihood of achieving better results. Better management provides a label under which private-sector rules can be introduced to the public services, political control can be strengthened, budgets cut, professional autonomy reduced, and public service unions weakened and a quasi-competitive frameworks erected to flush out the ‘natural’ inefficiencies of bureaucracy. More concretely the following beliefs are discovered in managerialist analyses of different accounts:

- social progress lies in the increase of economically defined productivity,
- productivity will increase with the help of technology
- the application of such technology can be achieved with a labour force adhering to the productivity ideal
- management is a separate organizational function and plays an important role in planning, implementing and measuring the increase in productivity
- in order to achieve this, managers have to have a “right to manage” (p. 2)

Following Reed (2002) New public management can be defined at different levels. At the systems level it is seen as a generic narrative of strategic change which legitimizes managerial approaches towards public service enterprises (Pollitt 1993, Braun and Merrien (1999). Also it is perceived as a new style of governance and management of public organizations at the organizational level, in other words, a new organizational form with appropriate mechanisms and processes that are in line with the overall governmental philosophy. (Neave and Goedegebuure 2001); Meek 2002) At the operational level, it is seen as “a practical control technology through which strategic policies and their organisational instrumentation can be potentially transformed into viable practices, techniques and devices that challenge, or at the very least substantially modify, established systems of 'bureau-professionalism'.” (p. 165)

To start with, we will explore the generic narrative of strategic change. The development of different management models from 1970's to 1990's as seen from the Pollitt (1993) study of the UK and USA public sectors will be a helpful source for this.

In his study, Pollitt (1993: 59) examines how the British and the Americans run their public services and how their approach has been changing since the 1970s. In the 1980s, the major reforms of the right wing governments in the UK and USA favoured management in the public sector, which was basically imposing more control of the results and cutting down the expenses by privatizing public services. Pollitt labels it as neo-Taylorism, which is characterized by three E's: economy, efficiency and effectiveness.

The major critique of this model of management lies in the specificity of the public sector as compared to the corporate sector, with its own rules of the game. Firstly, there is lack of coherence, notably, lack of an explicit model of the individual's commitment to and engagement with his/her work and in the promises of greater delegation to and autonomy for local units, and at the same time, strengthened political and senior management from the centre. (p. 113-116).

Secondly, realistically in the 1980s there was no competition among public service organizations in the UK and USA, therefore, the management could be 'provider oriented' instead of 'user-oriented'. Also more supply did not mean more demand, just higher costs. (p. 123- 125) In the public sector, the consumer transactions are more complex than the classic 'purchase decision' of the consumer in a price-driven market and consumers are seen as citizens. Moreover, the consumption in the public sector in itself is different, since public services often are compulsory.

Finally, the management of staff is quite complicated since staff terms and conditions in the public sector are usually different from those in the corporate world. The three major constraints are: constraints on the authority of line managers to hire, fire and promote,

national and quite inflexible pay awards and high autonomy of certain professional staff. (e.g. NHS doctors) (p. 126 -130)

The proposed alternative models of management have tended to emphasize increase in productivity, enhance control of professional providers and to concentrate more on the wants and needs of the users. In mid 1980's 'public-service orientation' developed as a philosophy, which was 'value-driven', approach that demanded that management relates to the customer needs. In contrast to neo-Taylorist model, 'public-service orientation' model emphasizes the importance of the collective, rather than individual choices. However, there are contradictions and ambiguities in this model as well, since there are tensions between the collective choices of consumers. (p. 148-152)

Another alternative model is that of cultural approach, the notion that each organization embodies 'an ordered system of meaning and of symbols, in terms of which social interaction takes place' (Geertz, 1973, p. 144) It was argued, that the organizational culture influenced the commitment of employees to the organization, their adaptability, the quality of service delivery and their confidence in management. It dealt with the subjective sense of engagement which public servants have with their tasks and the pattern of beliefs through which they give meaning to the organizational life around them (p. 164-165). The major prescriptions of cultural success in an organization are (Peters and Waterman's):

- A bias for action
- Closeness to the customer
- Encouragement to autonomy and entrepreneurship within the organization
- Respect for the rank-and-file employee
- Emphasis on a few core organizational values
- Concentration on activities the organization knows and understands
- Simple organizational structures with lean top-level staffs
- A combination of centralization of the core values (166-167)

Pollitt argues, that the management model of the late 1980's tried to combine both major approaches: neo-Taylorist and cultural for the public sector organizations. Talking about NPM, it borrows most heavily from the 'cultural approaches' However, the drive for efficiency is still present as well as the pressure on budgets. New public management is consistent with the ideas about efficiency, performance monitoring, target setting, private sector models of running organisations and a decline in trust and discretion. (Fulton 2002:167) In the 1990s conservative administrations in the UK and USA, NPM attempts to integrate the new 'cultural' elements with continuing rules of the game of neo-Taylorism. As Pollitt puts it, "NPM is not so much a charter for citizen empowerment as managerialism with a human face." (p. 187). According to Meek (2002), however, the new managerialism seemed to signal and represent a radical break with older managerialist ideologies and control strategies that had been primarily focused on the restructuring of organisational forms and practices through bureaucratic rationalisation. (p. 172) In other words, NPM at the organisational level provides a new set of tools that influence not only the organisational structure, its activities, but also its culture.

Looking at the above developments, it can be concluded that the management in 1970's entailed a tight control, cost reduction, work rationalisation and operational integration, but it did not threaten professional or producer power and autonomy, at least directly. The management models of the 1980s and 1990s, however, did, potentially at least, entail a much more direct ideological and political attack on institutional and professional autonomy that could not be covered by political rhetoric (Meek 2002: 172-173) However, as Pollitt (2004) argues, there is not enough evidence that the NPM with its standardisation and performance indicators penetrates the professional spheres. In this view, in some sectors of "complex unstandardized human services", such as health and education, the NPM techniques can be even counter-productive. Thus, in order to apply effectively NPM, knowledge needs to be mixed with the local context and relationships. In the case of this study, the particular context is higher education and research. Therefore, we will now explore the above developments in this public sector.

1.4.4 Governance of Higher Education and Research

As regards the governance of higher education and research, attention is brought to the dynamics of higher education organizations, the “the checks and balances” between modes of co-ordination (Enders 2002). In order to understand these latest developments it is useful to turn to a broader context of shifts in governance in higher education and research. Here a question needs to be asked – what kinds of changes in internal and external governance have been observed in higher education systems?

By and large, the analysis of higher education governance systems has been at the center of higher education research for about two decades. Different typologies have been developed, mostly concentrating on macro-level analysis. In other words, the understanding of governance has been treated as a “relatively coherent category” at the policy level (Braun and Merrien 1999).

In terms of the classifications of higher education governance systems, some typologies are of interest. First, one of the most widely used models is that of Clark (Clark 1983). His triangle of coordination of higher education systems includes three axes, state, market and academic oligarchy. The three corners of the triangle represent, “the extreme of one form and a minimum of the other two, and locations within the triangle represent combinations of the three elements in different degrees.” (p. 142) Clark referred to the example of the US, which represents a more market-like coordination of higher education, and Sweden and Soviet Union as examples of a more state oriented coordination. The UK and Italy were drawn as examples of an academic oligarchy form

of coordination. The opposition of market versus hierarchy is in line with aforementioned Mayntz (1998) political governance framework, where similar opposition is apparent in the development of the governance paradigm. However, it is understood that a mixture of different types of coordination can exist within one country.

However, looking at the further discourse on the subject, two modes of coordination in higher education systems are retained. From the public sector regulation point of view, two broad models of governance were distinguished in higher education policy characterised as state-control and state-supervision (Goedegebuure et al. 1994; Neave and van Vught 1991).

In the state-control model, government tightly creates, regulates and finances higher education institutions. It is also called the “Continental model” as it can be found in the main land Europe. The major characteristic is the combination of centralized bureaucratic control by the central state authority (Neave et al. 1994: 7) and the power of professionals/academic oligarchy. In terms of structure, it has a strong central authority, a weak institutional administration and strong senior chair holders. In terms of legitimacy, the state finds ways of intervening and imposing control under the umbrella of steering the nation’s economy. Areas of control include for example access issues, degree requirements, curriculum, the examination system, and the appointment and remuneration of academics (Ibid. 8).

In contrast, the state-supervision model emerges from the American and the traditional British higher education system. Traditionally, in the American and British models government has less influence on higher education than in Continental Europe. The state's role is different. Higher education institutions are themselves responsible for running their daily functions and management. In this model, the state sees its task to only supervise the higher education system in terms of assuring academic quality and maintaining a certain level of accountability. Thus, the autonomy of the institutions is rather high. As Neave and Van Vught note "the state sees itself as a supervisor, steering from a distance and using broad terms of regulation." (Neave et al. 1994: 9) Notably, this model has gained importance in Continental Europe.

However, later criticism on Clark's model in the 1980's and its simplified version in the 1990's concentrates on a mix of actors and forces. As noted by Braun and Merrien (1999), the above-mentioned typologies did not attempt to differentiate between the instruments and levels of governance. They note that market-like governance mode is necessary, where governance of the system is characterized by "competitive and uncoordinated dynamics" (Ibid. 18). According to Enders, the typology also did not take into account high self-steering capacity of science and did not provide a tool for analysing the dynamics of change (Enders 2002).

In other words, the shifts and developments in higher education governance today seem to be more complex than a two-fold typology. Therefore, further analysis asks for a more explicit understanding of the modes of coordination in higher education.

In literature, a somewhat more developed model of forms of coordination in higher education systems is proposed Schimank (1999) and Enders (2002). It combines five mechanisms that coordinate higher education:

1. political guidance of universities by state authorities
2. the self-regulation of oligarchic academic communities
3. competition between and within universities for strategic resources and for customers of their services
4. hierarchical self-guidance within universities by their leaders/management
5. stakeholders: interaction with and steering by other stakeholders (Schimank 1999) (Enders 2002)

The first three mechanisms seem to correspond to those of Clark and refer to state authority, academic oligarchy and market forces, or, more precisely, competition for resources. However, the fourth and fifth mechanisms extend “the list of forces and actors” beyond the triangle. Organisation as a possible fourth category in Clark's higher education systems model is discussed. It is interpreted as the hierarchical self-guidance by university-leaders (Schimank 1999). This category is an important component in universities and “strengthens the new managerialism model.” (Ibid.) By and large, with the rise of the stakeholder society as noted by (Neave 2002), the role of stakeholders in the coordination of higher education institutions cannot be neglected. The development of the initial governance gearing towards a more complex and multi-level model of co-

ordination is thus reinforced. It consists of a “constellation of ... the state, academic self-governance, quasi-market competition, hierarchical self-steering and stakeholderism.”

(Enders 2002)

As indicated above, different authors have attempted to understand governance and change in governance with the help of different models, ranging from the two-dimensional state regulation oriented approach and a triangle of co-ordination to the multi-level and complex model of “problem processing mechanisms.” In the first forms of coordination, emphasis is laid more on the external influences on the university, while the later ones include internal processes in universities as well; thus a tool is established for looking at the change in governance both from within and from outside.

A certain type of universities, which incorporates a managerial approach into organizational development, such as the entrepreneurial university (Clark 1998) has been introduced. In the ideal version of such university the managerial core of university is strengthened, funding base is diversified, departmental boundaries of “old” university expand, promotion of third-stream income at the departmental level, and integrated entrepreneurial culture prevail. With the reduction of state funding for higher education, universities are forced to be more active in the search for alternative sources, which may also imply more stakeholder involvement. Moreover, concepts of competition for resources, accountability and evaluation of academics, new management capacities and restructuring of relationships between different stakeholders are appearing (Reed 2002); (Enders 2002). Overall, a new trend, labeled new public management (NPM) or new

managerialism has been emerging both in policy discourse as well as in institutional mission statements.

In general this trend started with governments bringing management concepts from business into the public sector (van Kersbergen and van Waarden 2001). Universities, as part of the public sector, have been in the same context of new managerial trend. What in fact does it mean for them? According to Bleiklie (Bleiklie 1998), the major issue in NPM is to make public sector organizations act as corporate enterprises, which in its own turn “is lessening or removing differences between the public and the private sector and shifting the emphasis from process accountability towards a greater element of accountability in terms of results.” (Dale 1997) The underlying assumption is that “better management is an effective solvent for a wide range of ills.” (De Boer et al., 1999: 111) On an institutional level NPM is perceived as “executive leadership at the expense of the professional role in decision-making and instrumental rationality stressing ‘the three Es’¹ and top-down structures, such as centralization and hierarchy.” (Currie 2003: 98)

In fact, this trend is bringing certain features to universities, the adoption of which, we assume, may depend on the type of university. The major characteristics include:

1. Priority setting, by government and within institutions, including the contractualization of government-university relations, the assessment of targets and outputs, and the use of performance indicators;
2. Strengthening of the administrative and leadership functions within universities

¹ Three Es - economy, efficiency and effectiveness (De Boer et al. 1999:111).

3. Client-orientation, including a new focus on quality for both students and research sponsors and on marketing
4. Value-for-money, with an increasing emphasis on cost and returns. Central to the delivery of higher education under these circumstances is the development and operation of effective systems of planning and management within all institutions of higher education (Taylor and Miroiu 2002).

In this study, the checks and balances between different modes of co-ordination of universities as “a constellation of state, academic self-governance, quasi-market competition, hierarchical self-steering and stakeholderism” (Enders 2002) will be used as a point of reference. Since the focus of the study will be laid on the link between the models of management within universities and the research undertaken at the basic units in the broader context of higher education and research governance, a further elaboration on the role of research at universities is needed. In particular, what are the major typologies and issues discussed when it comes to the research function of universities? The following chapter will attempt to shed some light upon this question.

1.4.5 Research capacity of universities

“The university is capable of enormous change
and also of stubborn resistance to change” (Perkin 1984)

Research is inseparable from the world of science, where “the institutional goal is the extension of certified knowledge” as noted by Merton (Merton 1973). For the purposes of

this paper, we will understand research as an inquiry “undertaken on a systematic basis in order to extend knowledge and understand and/or solve practical or theoretical problems.” (Hazelkorn 2003) In addition, “research” will include the activities that support research, such as creation of post-graduate student courses, supervision and research training.

In many cases, research is incorporated into universities, which are claimed to play a major part for knowledge advancement in societies. In other words, university plays a role when it comes to servicing society through “transfer and production of knowledge.” (Jongbloed, Maassen, and Neave 1999; Carnoy 1999) Even more so, though debated in different traditions (Newman and Humboldt) research and research training constitute “the core sector of the university.” (Wittrock 1985)

The recent debates on the development of research university deal with the changing expectations of society towards science. There has been intensive discourse on reorganization of research organizations under different circumstances, such as changes in funding of research, science and technology developments, university-industry partnerships, research ethics and patents and university research being in “crisis.” (Brickman 1985: 39) So is the role of research within university changing, or is it still the same, just wrapped up in a different gown of rhetoric? According to Brickman, there are changes and they are two-folded. The importance of scientific system transformations, such as, growth of non-university centres of scientific activity, reduced the “intellectual autonomy” of universities and their central role as “performers of Research and

Development in national science systems.” (Ibid. p. 40-41) On the other hand, the organization and management of universities have exerted influence on “the vitality and direction of academic research in different historical periods (Ibid. 40-41).

Moreover, as Elzinga (1985) notes, there is a shift of values, norms and ideals of science at different levels which is referred to as “epistemic drift” at the level of research performance. On the theoretical level this means “a general shift in the social paradigm of research with new theories emerging that aim to explain new contractual and communicational relations that have emerged between researchers and their financiers.” (p. 210) Different actors, both on the side of central policy-makers and funding agencies and on the side of the researchers, are assumed to develop strategies. This implies they have goals and different resources with which they enter a negotiation situation.

So what is really happening to researchers at “the home of science?” (Geiger 1985) In order to explore the effects of the different organisational environment on the basic unit of knowledge production and raise concrete questions, certain dimensions of university research might be distinguished. As different authors suggest, a number of dichotomies in research can be noted: basic and applied, mainstream and innovative, mono-disciplinary and trans-disciplinary research. Different debates also include the problem of research quality, autonomy of problem choice and the changing research and teaching nexus. Bearing in mind the feasibility of the future study as well as the dimensions identified in the literature (Glaser et al. 2002; Gibbons 1984; Enders 2002; Dilts 1994; Clark 1991; Neave and Goedegebuure 2001), we propose to concentrate on four dimensions of

knowledge production at universities: teaching-research nexus, problem choice in research, mainstream and innovative research, and research output preferences.

1.5 Research Design and Methods

Actor-centred institutionalism (Scharpf 1997), which will be employed in the study suggests certain methodological considerations, such as specifying a limited number of constellations and carrying out a multi-level analysis. Moreover, the resource dependency theory (Pfeffer and Salancik 1978; Pfeffer 1982) suggests that it is important to draw the boundaries between the university and its environment, in other words, boundaries between different levels.

Thus, the study will comprise external and internal multi-actor space of universities. From the empirical point of view, a focus will be laid on the meso and micro levels. The macro level will serve as a secondary analysis. Basic research units will be the actors of the study. The object of the multi-level and comparative analysis will be the possible interplay of perceptions, decisions and actions between basic research units and organisational management at universities in the context of different modes of governance. This will be an exploratory inquiry which looks at similarities and differences between them at a given moment of time across a certain number of countries.

1.5.1 Multi-level Analysis

Institutions² govern researchers and, accordingly, basic research units. According to (Glaser et al. 2002), researchers “perceive institutions at different levels of aggregation and respond to them.” Therefore, a multi-level analysis, including governmental, organisational, and sub-organisational level is pertinent to the study.

1.5.2 Overall Comparative Approach

The comparative approach will be employed while looking at higher education systems and universities in the respective countries. Different traditions of university governance will be taken into consideration, such as Continental and Anglo-Saxon (Carnoy 1999; Clark 1998; Vink 1997), especially different state of the art of the introduction of new public management at universities, such as Germany, the Netherlands and UK. The fields of research will be selected according to the dichotomy of mono-disciplinary versus multidisciplinary research as well as humanities versus science. The underlying logic is to explore both Mode 1 and Mode 2 types of knowledge production (Gibbons et al. 1994). Therefore, the fields of history and biotechnology will be selected. Moreover, certain constellations of actors will be distinguished accordingly with the focus on basic research units of that field.

² By an institution we mean the set of rules that are prescribed for a certain purpose by some actors. Here the definition of an institution comes from the historical neo-institutionalism, where “institutions are defined as a collection of values and rules and routines that are developed in order to implement and enforce those values” (Guy Peters 1999:29).

1.5.3 Data Collection and Analysis

Literature and policy documents will be reviewed for the indications referring to the different modes of governance in higher education systems and the relation to organisational management of universities. This will allow us to reveal how the influence of different modes of governance on organisational management have been conceptualised in different countries. The cross country and cross organisational comparison of documentary data and literature will reveal the present picture of similarities and differences of different traditions. This will serve as a basis for further investigation of internal governance of universities.

Both, interviews as well as documentary data will investigate the work of basic research units exploring how research function has been affected by organisational management. The inquiry will be carried out by exploring the perceptions of academic and non-academic staff and administration (see Table 1) while looking at the different dimensions of organisational management within universities. With respect to research, organisational management will be discussed without making a distinction between academic and administrative management, unless indicated otherwise.

The attention will be drawn to a set of performance indicators of research capacities: personnel categories of academics for research and teaching, distribution of time budget, financial flows in research and teaching, licenses, patents, volume of external funding, co-publication and other cooperation with practitioners, variety of sponsors for research

projects, priorities in the university research programmes, university problem choice guidelines.

New managerialism's influence on universities will be conceptualized with the help of the ideal categories of hard, soft and no managerialism³. Universities with no new public management imply that the university is collegial bureaucratic - in other words, it has a classical hierarchy in decision making with a strong chair system (Currie 2003; Trow 1994). The assumption will be that new management modifies universities that originally have been bottom-heavy, loosely-coupled organisations dominated by powerful academics (De Boer 2003). The organisational management influenced by new managerialism becomes mostly geared towards 'corporate' ideals, where there is top-down decision-making, centralisation, dominance of managers, hierarchy and clear accountability and control of academic and non-academic staff.

The perceptions of academic and non-academic staff as well as administration may be distinguished looking at *different management instruments* in terms of budget allocations, personnel matters, strength of research areas, scientific-industrial networks, and teaching priorities, election and/or appointment, target setting, performance monitoring, work rationalisation, team-work and direct supervision (De Boer 2003; Currie 2003; Reed 2002):

1. Centralisation of decision-making

³ Trow (1994) distinguishes between hard and soft managerialism. Hard elevates institutional management and system management to a dominant position in higher education while for the soft managerialism managerial effectiveness is important in the provision of quality higher education at the lowest cost (De Boer 1999); (Neave and Goedegebuure 2001)

2. Strength and legitimacy of leadership

3. Accountability and control/transparency

Thus, besides the literature and document survey, a range of interviews will be carried out looking at different management instruments through the perceptions of academic and non-academic staff at different levels at university. This will help to identify if the university has been influenced by new managerialism. The findings will be reflected in the following table for each university and each discipline.

Table 1. Organisational Management at a University

	Hard managerialism	Soft managerialism	No managerialism
Centralisation of Decision Making			
Strength and Legitimacy of Leadership			
Control/Accountability			

Source: (Enders 2001) (De Boer et al. 1999: 98-114).

Each cell in the matrix will be filled with the indication derived from the interviewee answers as well as the analysis of documentary data for each discipline and each university.

The second part of the study, namely, the exploration of new managerialism's effects on separate dimensions of the research capacity at university will entail surveying literature and documents as well as interviewing relevant actors at the working level of universities, such as Heads of departments, institutes and/or labs, professors and individual researchers. While determining the concrete number of interviewees the criteria of a discipline will be used, since this usually determines the size of the department. The aim

will be to search for indications and tendencies of development within different dimensions of knowledge production while looking at the perception and capabilities of actors. The findings will be presented in the following table for each university and each discipline.

Table 2. Perceptions and Capabilities at the Basic Research Units

	Teaching Research Nexus	Problem Choice	Mainstream versus Innovative	Output Preferences
Head of Dept/ Institute/ Lab				
Professor/Chair				
Non-professorial Staff				

After filling out the previous matrixes for each discipline and each university, they will be compared with each other. The final results will be recorded in the Table 3, where it will be attempted to identify interactions between new managerialism at universities and their research capacities (see Table 3). In order to achieve this, the role of the actors in the management processes at universities will be compared to the perceptions/preferences (what they want? Regulation, mission statements, strategic plans of government, universities and research units) and capabilities (what they can? Resources - funds and information) of research staff at the basic units while looking at their lines of communication in order to reveal formal and informal institutions that govern them. In this way, two actor constellations will be examined. The results will be recorded in Table

3 for each university and each discipline and then compared cross country/discipline/organisation and combined to a single matrix for each discipline for each type of university across countries.

Table 3. Influence of New Managerialism on Separate Dimensions of Research Capacity at a University

	Hard managerialism	Soft managerialism	No managerialism
Teaching Research Nexus			
Problem Choice			
Mainstream and Innovative Research			
Output preferences			

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