Change Management in Higher Education The Introduction of Performance Oriented Payment in German Universities

1 Introduction

Today the higher education system is under pressure to adopt fundamental changes in the main fields of their responsibility. The Bologna Process, the emergence of private higher education institutions, the increasing demand for higher education, international competition (ratings) and steep financial cuts by the government are just a few of the major changes in the higher education system that forces universities to change their management in several areas. One important area is the staffing policy. The university teachers or the academic personnel in comparison to the administrative personnel of a university have derived from the freedom of research and teaching (Humboldt) relatively high degree of autonomy regarding to the manner in which they fulfill their work. Especially decisions regarding the teaching and research topics they focused on have been nearly independent from any institutional strategy of the university leadership.

In 2005 the German government passed a law which rearranged the public sector payment of the university professors (ProfBesReformG). it is now possible for the universities to pay a small part of the professor's salary as performance oriented. The former public sector payment system has been dominated by the rules of seniority which are reversed to a system that forces differences between professors. The main question is how the university leadership handles the performance oriented payment. More precisely this entails two further questions: How does the university leadership introduce the performance oriented payment system (1) and what is their experience with the current system (2).

The following results are based on three case studies within universities who implemented performance oriented payment systems in different ways. On the one hand the way how the university directors implement the new payment systems is strongly connected to the self conception of the particular university and on the other hand offers tight associations to particular organization theories and practices.

In the following I shortly describe the new performance oriented payment system (2) and give an short overview how Universities can be seen as organization from an organizational sociology point oft view (3). Afterward different modes of change management are presented (4) and related to the university organization.

After describing Data and Methods (5) the empirical findings (7) are presented. In a short conclusion the findings are summarized and further questions are entitled (8).

2 Performance oriented payment in German Universities

In 2005 the German government passed a law ProfBesReformG (2002) that rearranged the public sector payment of university professors. The new payment system includes beside many other changes the possibility to earn additional money because of appointment negotiations (1), for special performance in research and teaching (2), and at least for taking over positions in the self governances (3). The amount of the additional money is usually stated in a management by objective process between the university director and the individual professor during the appointment negotiations.

Each university is legally bound to regulate by decree to what extent additional money can be achieved by the university professors and what kind of scientific *work* it is worth to achieve extra money for. Each university has developed a system of how they use the possibility to pay their professors additional performance oriented money. Looking at these systems we can observe that more or less similar criteria for special performance in research and teaching are stated: science awards, publications, setting up research groups, achieve third party money, international cooperations and knowledge transfer. We can also observe that the universities establish different kinds of models beginning with a simple *three stage model* toward a sophisticated five stage model with the ability to achieve a one time payment up to $5000, - \in$. In the decree is also stated that an evaluation of the negotiated objectives and performance has to take place after one up to three years.

Furthermore we have to mention that in the law it is stated that the average of all paid salaries, including the salaries paid by the old system, must not vary or even to a very small extent. Therefore salary differences arise which of course exist in the old system also but only to a very small extent. Another point we have to mention is that the base salary has shrunk dramatically: The base salary of a university professor at the end of his career in the old system averages $6.500 \in$. The base salary in the new system amounts to about $4.900 \in$ plus the performance oriented payment.

Another important point, related to the introduction of performance oriented payment is that now the university has the staffing responsibility. In the past the government has appointed the professor, the university or the university director has almost no influence on the decision of the government. Today the university has the possibility to decide who to appoint and so to take responsibility for the staffing of the university. And by the possibility to pay performance oriented the university director is able to give financial incentives to strengthen the main research fields of the university.

The introduction of performance oriented payment in German universities stands for radical changes in the scientific system in Germany that could be exaggerated described as a transition from the *ivory tower* to the *enterprise university*.

To conclude: With the introduction of performance oriented payment the base salary of German (new) university professors has shrunk dramatically, the differences between the professors salary increases, the staffing responsibility shifts from the government to university director, and a radical change in the scientific system in Germany from the *ivory tower* to the *enterprise university* is initiated.

All aspects of the introduction of performance oriented payment system in German universities to come to a head that the universities are seen as (economic) organizations. From an organization sociology point of view universities can be described as organizations in different way which is the main focus of the next chapter.

3 The University Organization

No doubt, the *Alma Mater* is an organization. Without any problems we can assess Leavitt's components (1965) of an organization in the university: The social structure refers to the relationships existing among participants in the university and can be divided into a normative and a behavioral structure. The normative structure contains values and norms such as the freedom of teaching and research and role expectations. The behavioral structure refers to the factual order resulting from acting participants influenced by the normative structure.

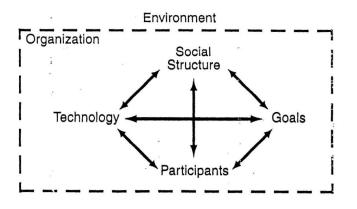


Fig. 1: Elements of Organization Leavitt (1965)

Participants of the university organization are according to the focus of organizational analysis students as well clerks, administration secretaries, researchers, and professors. Each one of these mentioned participants make contributions to the university organization.

"The concept of organizational goals is among the most important - and most controversial - concepts to be confronted in the study of organizations" (Scott, 2003, S.22) In the case of the University goals are ambiguous (Cohen et al., 1972) and mostly not clearly defined. Usually in the university organization goals are stated in mission statements and contain e.g. goals like "Our goal is to educate students to be self-reliant, both intellectually and personally" or "Our goal is to create flexible structures to facilitate the highest level of interdisciplinary teaching and research. Outstanding results within the disciplines are essential for sustainable interdisciplinary achievements" to mention two goals from the Mission statement of the Leibniz University of Hanover.

The *technology* of the university organization is easy to assess when focusing on the educational part: Teaching students with latest teaching methods. According to the research conducted in the university organization the technology is more difficult to assess. Perhaps the technology can be described as the common techniques of scientific knowledge production.

The question what the environment of the university organization is, I would answer it is the society, knowing that this answer is very abstract.

To conclude: The university can be described as an organization. All of Leavitt's components (1965) can be found. The university organization shows a social structure, participants can be also found as well as specific technologies for teaching and research. The society in the widest meaning can be seen as the environment of the university organization. to describe the University as an organization makes it easy to focus different parts or the meaning of Leavitt (1965) components of the university.

Scott (2003) distinguishes three levels of analysis: "The *social psychological* level focusing on the behavior of individuals or interpersonal relations involving individual participants within organizations", "the *organizational structure* level focusing on the structural features or processes that characterizes organizations", and thirdly "The *ecological level*, focusing on the characteristics or actions of the organization viewed as a collective entity operating in a larger system of relations" (2003, 17). From this point of view we can observe changes in the university from different perspectives.

The classical Weberian view of organizations as bureaucracies is worthy focusing on the structures of the university. In comparison if we try to focus on the social psychological level e.g. how decisions arrive in the university self governance process the Cohen et al. (1972)s garbage can model of organizational choice will be helpful. In the following section the description of the university as a bureaucracy and the description of the university as organized anarchy will be shortly outlined.

The bureaucratic structure of the university

There is no doubt the University can be described as a bureaucracy close to the ideal type of the organization machine (Pellert, 1999, S.83). The following bureaucratic structures formulated by Max Weber in the university can be found:

1. Jurisdictional areas are clearly specified and the activities are distributed as official duties. In Germany by the government is deeply specified what a university is an has to do by law. 2. The Organization follows hierarchical principle. In the university especially in the administration this structural element is strongly pronounced. But also in the academic area of the university hierarchical relations are common way of relations between participants of different positions (e.g. the relationship between the professor and the PhD-student). Anyone who has tried to get money from the financial department of the university knows that very well. 3. Intential, abstract rules govern decisions and actions of the University. These rules are stable, exhaustive, and can be learned because they are derived from the law mentioned above. Decisions are recorded in permanent files. Remembering the own appointment process in the university this becomes very obvious! 4. Officials are selected on the basis of technical qualifications, are appointed not elected, and are compensated by salary. Do not need to be exemplified. 5. Employment by the organization is a career. The official is a full-time employee and looks forward to a life-long career. After a trial period they get tenure of position and are protected from arbitrary dismissal.

Of course this is a constructed ideal-type of Weber and we have to consider that this ideal-type in the empirical world not will be found at all. But at least it will be obvious that the bureaucratic organization conceptualized by Max Weber is suitable to describe the university organization especially focusing when on the structural aspects.

The university as an organized anarchy

If we focus on the social psychological level in the meaning mentioned above universities can be described as "organized anarchies". Everyone who has participated in some kind of university self governance knows that very well. Decisions are made by anything other than because of legally based authority like Weber's bureaucracy model predicts. Cohen et al. (1972) developed the so called Garbage Can Model for such organizations which faces "decision situations evolving unclear goals, unclear technology, and fluid participants" (1972, S.11). Decisions often do not resolve problems. Many decisions are made by *flight* or *oversight*. Especially focusing on the academic oriented part of the university the garbage can model fits very well. Different participants have different agendas derived from their own (research) interest and not as in the bureaucracy derived from legally based authority. So at this level the goals of the university are ambiguous and the technology is not clear defined. Usually decisions are made because the decision is satisfying. But nevertheless decisions are made and we can observe that even with the prominence of such kind of decision making the universities still exist. And Cohen et al. (1972) reason "it is clear that the garbage can process does not resolve problems well. But it does enable choices to be made and problems to be esolved, even when the organization is plagued with goal ambiguity and conflict with poorly understood problems that wander in an out of the system, with a variable environment, and with decision makers who may have other things on their minds" (Cohen et al., 1972, S.16).

Of course the Garbage Can Model is as well as Weber's bureaucracy an ideal-type we can not find in the empirical world, but nevertheless it has made a major contribution to our understanding of the limits of the rational models like Weber's bureaucracy.

To conclude: The university can be described as an organization. If we focus structural aspects the Weber's bureaucracy theory is suitable, if we focus the social psychological level of decisions and individual behaviour the Grabage Can Model will be appropriate.

4 Change and Change Management in the University Organization

Changes that forces reorganization are usually understood as changes in the environment of an organization. The process of adaptation and the management of this process is widely called change management. Following this wide definition several different approaches can be found especially in the economic literature: Business Process Reengineering (BPR), Business Reengineering (BP), Process Innovation (PI), KAIZEN, Lean Management, or Total Quality Management (TQM) to mention only a few. These approaches can be divided into top-down and-bottom up oriented change programs. And this distinction offers the possibility the connection to basic organization theory. While the top-down model (BPR, BP, and PI) refers to a rationalist organization theory like Weber's bureaucracy focusing on the structural aspects of the organization. The bottomup models refer to the social psychological level of an organization and therefore e.g. the described Garbage Can Model (Cohen et al., 1972) might be an interesting theoretical link.

In the special case of introducing performance oriented payment in German universities both, the structural and the social psychological approach has to be considered in the change management process. So it seems not very helpful to investigate single change management approaches mentioned above. Therefore the question is: What has happened in the environment (1) and how does the university organization adapted on the structural level on the one hand and on the social psychological level on the other hand (2).

Simsek und Louis (1994) have investigated the change in a large public university. They understand organizations, and in this special case the public university, "defined by their paradigms, that is, the prevalent view of reality shared by members of the Organization. Under a particular dominant paradigm, structure, strategy, culture, leadership, and individual role accomplishments [...] radial changes in organizations my be construed as a discontinuous shift in this socially constructed reality" (1994, p.671). This understanding of university organization allows focusing on both the structural and the social psychological level. Consequently change has to be understood as paradigm shift.

Simsek und Louis (1994) conceptualized the paradigm shift with five consecutive processes: "normalcy, confrontation of anomalies, crisis, selection (revolution), and new normalcy" (Simsek und Louis, 1994, p. 675).

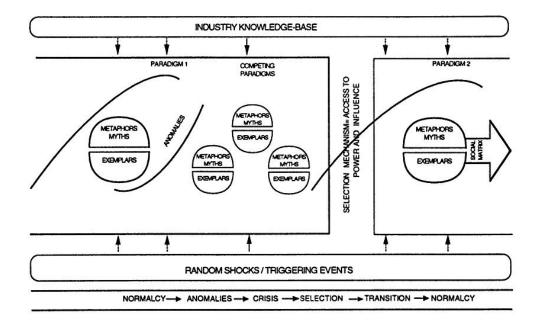


Fig. 2: Change as Paradigm Shift (Simsek und Louis, 1994, p.671)

In the case of the introduction of performance oriented payment in German universities PI can be described as the well know *ivory tower* and PII can be conceptualized as a market bureaucracy in the meaning of Considine und Lewis (1999).

5 Data & Methods

The presented results are part of the larger research project *Governance by Objectives* conducted at Leibniz University of Hanover and based on qualitative interviews in three German universities who had introduced Management by Objectives procedures to state the amount of the performance oriented part of the professors salary. For this paper only interviews with the university directors have been analyzed. The universities have been chosen by the complexity of the decree that states the procedure of performance oriented payment. Additionally the university differ in size and reputation. The first case (U1) is a medium-scale university (15.000 Students) that has established a simple three stage model to state the amount of the performance oriented payment of their professors. The second Case (U2) is a small university (9.000 students) with a difficult system of five stages each with different amount, where the last two stages can be culminated. Additionally it is possible to achieve *extra one-time payment* up to $5.000 \notin$ The third case (U3) is a large university (35.000 students) that had established a five stage model.

The interviews have been conducted with a questionnaire between May and July 2008. The interviews have been recorded and transcribed. Each interview has a length of about one hour. For this paper the question of how the university directors introduced the performance oriented payment system in the university is analyzed as case studies.

In the following short conclusions of each of the three cases will presented with the special focus of the way (strategy) how each university introduced the performance oriented payment system, what their experiences during the process was and what they have expected before they started implementing the new system. It is hypothesized that the way of introducing, the expectations and experiences offers tight connections to the already mentioned descriptions of the university as an organization.

6 Introducing the new payment system

In the following the introduction of the performance oriented payment system will be reconstructed from the view of each university director. The first question to each of the three university directors was to narrate how they have introduced the new system.

6.1 Case I - University Bureaucracy

The director of the first university refers in the first sentence of his description the new decree enacted as a result of the new law (ProfBesReformG).

You know, there is the decree from the government. [...] and together with the personnel department we have designed a model that is based in our decree for the performance oriented payment.

A few sentences later he mentioned again that they enact their model in a decree. Afterward they discuss the model in the presidium and the extended presidium. During these discussions essentially nothing has been changed.

Essentially nothing has been changed; basically anyone has accepted the model. We briefed the senate and enact the model.

Focusing on these two paragraphs in the interview it becomes clear that the change process of introducing performance oriented payment shows tight connections to Weber's bureaucratic theory of organization. The basic element of the organization and organizational change is legal authority. Therefore it is consistent that the introduction of the performance oriented payment is conducted in a top-down manner. The university director, the personnel department, and the presidium designed a model and introduce it top down. They only *briefed* the senate.

The director of the University describes the introduction of the performance oriented payment without mentioning any conflicts or difficulties. Asking him if he has an idea why there have not been any conflicts he answers:

Well, I think everything runs very well because our model introduces the performance payment in very moderate way. It is based on the assumption of the driving power of science. If you think somebody raises his performance because he has $800 \in$ plus, then you would enact a totally different model. We think the intrinsic motivation is the point. But in the meaning of slight adjustments we can do differences. Performance plays not the dominant role but it is a part of the model we enacted.

Asking him about the implementation of the performance oriented payment into the whole strategy of the university if it exists at all and how they have established the connection between the primary objectives of the university and the objectives stated in the enacted decree based in the mentioned model, he answers:

Well, the strategy is simple: We want to improve research, which is articulated in measurements like research rankings and ratings. [...] So we have to give some incentives to improve the research performance. But, as I told you before, to my opinion the crucial point is the hiring policy. If you give an appointment to a good university professor, only slight adjustments have to be done. If you give an appointment to a poor one now its possible to do slight adjustments. So, I stick to it, the hiring policy, the right people, which fit hither, personally fit. That's the crucial point.

This paragraph shows the already mentioned weakness of financial incentives to improve the performance of university professors. And at least this quotation offers a connection toward some human resource management aspects. To appoint the good university professors is more important than the possibility to do differences by the performance oriented payment. To conclude: The introduction of the performance oriented payment has been conducted top down. And the way how this university director narrates the change process it offers tight connections to Weber's bureaucracy with a spark of human resource management aspects.

6.2 Case II - Enterprise University

The second case, the small university, acts totally different compared with case I as the following quotations will show.

Well, the first step was that we thought over our budget [Vergaberahmen]. We calculated our budget and after that we thought about as system a governance system how to introduce performance oriented payment. We introduced a step model. [...] These five steps are endowed with different amount of Euros. The first step is about $300 \in$, the second step another $400 \in$, the third step another $500 \in$ up to the fifth step and so on. To design this model we have, at least because of greater acceptance, and the point that the introduction not felt impressed top-down, used the support of the CHE (Centre for Higher Education Development). Well we did a contract with Mr. [...] with the Objective to introduce a system of performance oriented payment [...]. And that runs very well.

Asking him why they used the support of a professional consulting enterprise he answers:

Well, we think that the CHE has extensive experiences in consulting universities and are familiar with the introduction of the performance oriented payment. And they have experiences with the topic, because the have analyzed the way other universities introduced the new payment system.

Both quotations show a different way to introduce the performance oriented payment as in case I. The first thing he mentioned concerns the financial question. We have calculated our budget and have a look what we can do shows that he acts like an entrepreneur. Moreover as he told me that they used a consultancy to introduce the performance oriented system. Both, first to have a look at the budget (to answer the question of liquidity) and second to use the support of a professional consultancy or in other words to buy know how to avoid mistakes and to strengthen the interests of the university leadership is to my opinion more typical for an enterprise as for a bureaucracy.

This university director also does not report any problems, without asking him if there have been any complications or conflicts during the introduction and with the now established system. He answers:

In [..City.] the system runs very well. The restrictions we had made during the introduction have been accepted without any reservation. [...] Only one professor has complained at the ministry of science.

And after asking him why he thinks everything went all right with few complications, he said:

We had communicated the new system and at the same time we made clear that there is no alternative. And today (two years later) the use of the performance oriented payment pretty normal. [...] Today there is no conflict because, I think, we have a god model, we use it carefully, and we pay a good salary.

[Several minutes later he comes back to the question of the amount of the universities professor's salary]

And another prejudice but a positive one is the intrinsic motivated university professor. Even the very well motivated professor, an I use this prejudice as well, knows very well how much he has in his account and he knows also very well how much he wants to have. And there is nobody who did not mind it [...] and I think it is all right that also in the university to talk about the salary and it is also all right that differences between the salaries exist.

This quotation, to my opinion, shows especially compared with case one that financial incentives in this case are seen as important. Moreover this university director knows about the metaphor of the intrinsic motivated university professor and he cedes that he also used this in his opinion prejudice. To conclude, facing the introduction of the performance oriented payment system the investigated university seems to act like an enterprise. First they survey their budget and second they mandate a professional consultancy to introduce the new payment system.

In comparison to the first case, the manner how this university focused more on the financial aspects and not so much on the law and the decree they also have enacted. The legally based authority, as a characteristic of a bureaucratic organization does not play a dominant role. The university director qualifies the importance of such decrees later in the interview as follows:

On the other hand there is much in the decree we do not use at all. Well we use the performance oriented payment in a unbureaucratic way.

Of course the unbureaucratic use of decrees in larger enterprises companies is a myth but the attitude shown in this quotation suits to my opinion more to an enterprise than to a bureaucratic organization.

To conclude: This university focus on their budget and uses the support of a consultancy during the introduction of the performance oriented payment. The communicates the relevance of this changes and try to pay their professors a good salary, based on the fact that also the university professor know how much is in his account every month.

6.3 Case II - Between Bureaucracy and Market

In the narration of the university director of the third case it becomes clear that the introduction of the new payment refers to something between the opposed conceptualization of market and bureaucracy. First he describes in the university [XX] MbO processes

already established long before the performance oriented payment. And that they have established a sophisticated system of strategic planning.

[Performance oriented payment] has been introduced in 2005. And there have been of course a lot of lawyer dominated decrees, acts and things like that. The university administration has translated in very detailed regulations. But this has been only the method. [...]

This quotation shows the necessity to focus both the lawyer dominated view of performance oriented payment by the university administration and question of to what extent the tool is connected to specific contents or a specific strategy. The first aspect highlights the structural aspect whereas the other aspect focuses on the strategy behind it. This is shown especially in the next quotation:

In a MbO process the bonus in contradiction with the appointment negotiations and negotiations to stay is stated, because this bonus is kind of future oriented. We said, in the beginning we do not want to steer to a great extent, but rather introduce this MbO process. [...] And lately one bonus is a part of the salary and this we do not state in a MbO process but rather we look at the individual person, what he has done before, is he important for us. And this is negotiations based on current market values. And I recognize that e.g., and to me this has been an important point, performance is not the only thing that affect the bonus, but rather the discipline. Well, social scientists get less than masters of business administration, or I don't know specific engineers. Well this has nothing to do with performance at all. Who earns more on the market, bit by bit earns more in the university.

Well, the former role of the state, not to depend on the markets and noncompetitively and in the following the *preußische Beamte* doesn't get a salary, but rather he has been ceded and faith to his employer was his duty. But his is crumbling. And market principals penetrate the public service and even the payment of the university professors. Marked principles are combined with the old model.

Within this quotation it becomes clear that a transition from the *preußischen Beamten* (public servant) to an actor on the market take place. To focus on the strategy this university director used to introduce the performance oriented payment it becomes clear that both the administration (to enact a decree) and the strategy have to be considered.

As well as the other university directors he also does not report any problems or conflicts. Asking him if there have been any conflicts he answers:

There have been no conflicts not last because it concerns only the new professors. [...] But in a hole, because you have asked about conflicts rather it is very positive this culture of negotiation. [...] Well, of course some cruelty is usual, but this has nothing to do with the way we introduce the performance oriented payment. To conclude: in this case is shown that the introduction of performance oriented payment (needs to) consider both the old bureaucratic structure and the market principle. In this particular case the strategy to introduce the new system with relatively slow pace and with less steering interest. To get familiar with the new system as a first step refers to some human resource management aspects or the garbage can model in the meaning to throw a problem and a solution in the garbage can, in the hope they find each other.

7 Results

As described the three university directors introduced the performance oriented payment in different ways or in other words the adaptation of change in the environment managed differently. The change management does not refer to any of the change models or programs mentioned above. But rather it can be asserted that the different ways to introduce the performance oriented payment systems in the particular university shows tight connection to Weber's theory of bureaucracy. The connection to the garbage Can Model is not as evident as hypothesized. An interesting result is the different use and articulation of market principles on the one hand and the idea or what drives science on the other hand.

In consideration the newness of the change in the environment and knowing that inertia is a characteristic of the German university relatively less could be said about the change model drawn by Simsek und Louis (1994). It is a simple fact that the change process has not finished yet. In the words of Simsek und Louis (1994) we could say that today the change process is somewhere between paradigm I and paradigm II. What we could say is that paradigm I, the well known *ivory tower* has shattered, market principals are on its way inside and in the meaning of the university directors *that won't hurt*.

To my opinion the most important change with the introduction of performance oriented payment is that the university and the directors become more responsible for the staffing. And have the possibility of steering the university as a whole by their hiring policy and to give (greater) financial incentives as it has been possible before.

At this point it is to early which strategy will be more effective but from Glueck (1969) we know that: "changes that proceed incrementally, from bottom to top, with the participation in the change by those affected and using behavioral [HRM (C.B.)] as well as structural methods are likely to be more effective than those using only structural methods" (1969, p.448).

8 Conclusion & Further Questions

Since 2005 the new university professors are paid performance oriented. This is a fundamental change in the German university and science system. This change can be described as a shift of the university from the well known *ivory tower* to the enterprise university acting like a company. This fundamental change has to be managed by each university in Germany. To investigate the change management three universities have been selected and their directors have been interviewed. The interviews have been conducted as widely open interviews with a field manual containing only a few questions. The presented results focus only one point from others mentioned in the interviews.

It has been hypothesized that the way how the university directors introduced the performance oriented payment offers tight connections to Weber's bureaucracy theory and the Garbage Can Model (Cohen et al., 1972). And it has been also hypothesized that understanding of the change as paradigm shift (Simsek und Louis, 1994) can be also found in the interviews.

Tight connection to Weber's bureaucracy theory can be found to more or less extent in the interviews. Change management practices that refer to the Garbage Can Model have not been found. An interesting and not predicted result is the manner how market principles have been introduced in the university. Each of the interviewed university directors refers to market principles while describing the process of introducing the performance oriented payment.

Summing up we can say the introduction of performance oriented payment is conducted in different ways by the university directors. The change management refers more to Weber's bureaucracy theory and less to the Garbage can Model. In each case market principles play a prominent but not even the dominant role.

During the research many further questions arose. I only want to mention two: The paradigm shift or change from the university conceptualized as a *bureaucratic ivory tower* to some kind of enterprise university or market bureaucracy refers to the question of the production of scientific knowledge and the evaluation of this knowledge, If we refer to Merton (1973) a scientific endeavour, major discoveries, and scientific knowledge only can me judged by the *producing* scientist himself, All others are referred to use indicators. So the superficial question is what are the indicators? But behind the *indicator question* the question of what *good sciences* is or should be arise.

Another interesting point in conjunction with the performance oriented payment and MbO processes. From organization sociology and lately from this research we know that pure bureaucracies and pure market driven organizations do not exist at all. In fact we have to recognize that most organizations bear characteristics of both. Especially in the management by objective process we have to consider this in different ways. Two points are interesting: From a theoretical point of view we have to consider that universities (now) bear both characteristics and ask what the special requirements are for an organization theory of hybrid organizations (1). Derived from the freedom of research, professors have a relatively high degree of autonomy according to the manner of how they fulfil their work. Especially decisions regarding to teaching and research topics they focused on has been nearly independent from any institutional strategy of the university leadership. Therefore the market principle should be as ineffective as the organization principle (hierarchy).

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