

Managing university culture: an analysis of the relationship between institutional culture and management approaches

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Abstract. Universities are complex social organizations with distinctive cultures. On the one hand, academic freedom and autonomy are inviolable values and, on the other hand, changing environmental conditions exert strong influence on the primary functions of universities. This paper analyzes the ability of university cultures to adapt to these changes and describes management approaches that mirror the specific culture of a university. Various methods for assessing culture are described, a typology for interpreting university culture is introduced, and management approaches are analyzed. For administrators as well as researchers this work helps to explain the implications of university culture for management processes. This integration steers university leadership in a new direction combining strategic and symbolic management actions.

Introduction

Organizational culture in higher education management has been recognized as an important area of research by only a few authors (Maasen 1995). Especially Clark (1970, 1972, 1983) developed the concept of organizational saga and its influence on different types of academic beliefs. Tierney (1988) tried to establish key cultural dimensions that could be used by administrators to change institutional elements that are out of balance with the predominant culture. Dill (1982) emphasized the relationship between symbolic management and academic culture. He argued that through specific characteristics of universities a culture develops that can only be managed effectively through symbolic approaches. Masland (1985) looked at methods and techniques for uncovering the relationship between organizational culture and higher education. Becher (1981) was one of the few European researchers who studied disciplinary culture. He argued that the discipline is the core dimension for differentiation and for the development of a specific set of values.

Although most authors agree on the influence of culture on academic institutions it is not clear how university culture functions. The emphasis can lie on the faculty, the administration, the discipline, or the whole organization. Given the growing vulnerability and the major characteristics of universities,

the missing dimension is the importance of the environment for the development of a specific culture. This work tries to shed light on this external perspective of higher education culture and management.

Universities are complex organizations with a unique set of features. Unlike many profit-making organizations, universities have certain characteristics that need to be understood (Birnbaum 1988; Baldrige *et al.* 1977) and that dominate the culture of academic institutions.

First, their goals are ambivalent. Different objectives and standards in teaching, research, and service as well as lack of agreement on guidelines for goal achievement result in an ambiguous decision-making process.

Second, universities are to a large extent “people-oriented” institutions. Different constituencies need to be recognized for universities to fulfill their task. Among them are pre-work students who enter the institution with specific expectations and needs regarding their education and preparation for future professions. Others are executives looking for additional training or companies with problems they want to be closely researched. Therefore, agendas like the administration of regular programs, commissioned research, part-time continuing professional education or partnership and exchange programs with other academic and non-academic institution add to the cultural diversity and to the challenge for university management.

Third, institutions of higher education have problematic standards for goal attainment. For manufacturing organizations it is easy to define segmented and routinized procedures but when mostly people are involved – as in universities – it is hard to develop one adequate standard for delivering diverse services.

Fourth, the professionals (i.e. professors) working at universities tend to be experts with a strong wish for autonomy and freedom. This makes it difficult to establish a coordinated initiative for governing and managing the university. The decision-making processes at universities are often complicated and long due to the involvement and different interests of academic and administrative staff. With the rise of professors in e.g. financial management, computing and management information systems, or planning within central administration the role of the “experts” is changing too. This causes conflicts of expertise between administrators concentrating on processes and faculty focused on content therefore less experienced with management or decision-making.

Fifth, universities are vulnerable to their environment. Changes in political, economic, social, and technological conditions can effect the situation of universities strongly and should be used for strategic activity planning in higher education. It is evident in many countries of the Western world that universities are struggling with new forms of institutions that match institutional autonomy, social demands, and governmental regulations. Technical innovations can change patterns and processes of communication and the

way universities interact with their environment dramatically (Dill & Sporn 1995a).

Baldrige (1977) showed that the functioning of universities can be defined by a bureaucratic (Stroup 1966), a collegial (Millett 1962), or a political model (Baldrige 1971). Cohen and March (1974) viewed universities as organized anarchies and Mintzberg (1982) explained the uniqueness of universities as “expertocracies”.¹ Weick (1976) characterized academic institutions as loosely coupled systems. All these authors thought of universities as complex organizations. Their goals are more ambiguous; their focus is on people not on profit; their techniques are unclear and non-routine; they are vulnerable to environmental changes and experts dominate the decision-making process.

Looking at these different approaches, the common problem of complexity and resulting fragmentation inside universities becomes obvious. Several early investigations of universities consciously adopted a cultural perspective to explore these tensions (Clark 1960; Reisman *et al.* 1970). In the 1980s the concept of organizational culture evolved out of an interest to better understand corporations in order to make them more competitive (Peters & Waterman 1982; Deal & Kennedy 1982). Understanding university culture makes the analysis of managing structures and processes more comprehensible (Dill 1982; Masland 1985). Practices of decision-making and planning can be explained on a broader level and management challenges can be identified. Also, culture has an unobtrusive force that becomes critical if implicit (e.g. hierarchical structure) or explicit (e.g. formal regulations) forms of control are missing (Masland 1985). Since universities are complex organizations with little formalized structure and weak control mechanisms, university culture as a regulator needs special attention.

Apart from internal problems, universities face dynamic changes in their external environment. In Europe this has been caused either by an increased demand for education that leads to mass education or by a decreased supply of necessary resources leading to financial constraints, or by both circumstances. In order to confront these “new” problems, management knowledge needs to be applied to universities (Dill & Sporn 1995b). Tools like strategic management and planning, marketing, or the initiation of fund-raising campaigns need to be investigated. University culture can serve as an important variable for these adaptations (Arnold & Capella 1985; Tierney 1988).

As universities confront the challenges of mass education or financial decline, the understanding and management of university culture can become vital. Because many universities are a conglomerate of autonomous subunits with loose links and a high degree of specialization in the disciplines, overall integration at a broader level is needed (Becher 1981; Clark 1983; Dill & Sporn 1995b; Clark 1995). A dual perspective of university management – as

suggested in this paper – combining instrumental and symbolic dimensions can help to meet these requirements. Managing university culture fosters the strength of an institution in times of decline. The strains put on the university in this situation can be relieved by providing stability and continuity (Dill 1982). But, managing university culture is a difficult objective. The first step for university officials would be to accept the centrality of culture to academic organizations followed by an analysis of the specific university. Concrete implications for the management should follow.

This paper analyzes the essentials of the relationship between university management and organizational culture and introduces a typology as an interpretive model which allows the positioning of universities with respect to the strength and orientation of the institutional culture. The focus lies on the analysis of university culture as a whole as opposed to disciplinary culture. An empirical assessment of the culture at the *Wirtschaftsuniversität Wien*² was performed using a mix of quantitative and qualitative methods including secondary data analysis as well as multidimensional scaling (Sporn 1992). By applying the results to the typology for interpretive purposes, a specific type of culture for the *Wirtschaftsuniversität Wien* is found and implications for the university management are drawn.

University culture

For the long term success of institutions specific kinds of organizational culture are more enhancing than others (Denison 1990; Kotter & Heskett 1992). Kotter & Heskett (1992) differentiate between strong, strategically appropriate, and adaptive corporate cultures. All these types can to a smaller or larger extent influence the performance of organizations. Basically, a performance enhancing culture is one where values of highly motivated employees are goal aligned and informal control mechanisms exist (=strength). Also, the successful culture must “fit” its context, whether this means the industry condition, a segment, or the organizational strategy (=strategically appropriateness). Moreover, only cultures that can help organizations anticipate and adapt to environmental change will be associated with superior performance over long periods of time (=adaptability). Consequently, the survival of an organization can be strongly influenced by one or more types of these cultures.

The increased interest in the application of organizational culture to universities derives from almost the same problems business companies are facing. A new, more competitive environment, less public funding, changes in the role of the state, or the claim for more academic management, accountability, and autonomy let universities encounter problems like adaptation, coordination, communication, evaluation or effectiveness (Dill & Sporn 1995a). Previous

work shows that universities are organizations that are dominated by social interaction and therefore develop a very specific kind of organizational culture (Becher 1981; Clark 1983). Definitions of this culture are diverse but certainly include patterns of behavior and values that are transmitted over time (Peterson & Spencer 1991). These behavioral patterns and values influence the process of problem-solving (Schein 1985; Ouchi & Wilkins 1985; Tierney 1988).

The definition of university culture used in this paper emphasizes the values and beliefs of university members which are developed in a historical process and transmitted by language or symbols (Deal & Kennedy 1982). They influence the decision-making at universities strongly (Tierney 1988). These shared assumptions and understandings lie beneath the conscious level of individuals. They generally are identified through stories, special language, and norms that emerge from individual and organizational behavior (Cameron & Freeman 1991).

Taking the experiences deriving from business cases into consideration, different types of cultures seem to facilitate the management and the performance of universities in times of a more dramatically changing environment. A kind of "ideal" culture can facilitate the following functions (Ulrich 1984; Kotter & Heskett 1992):

- identification (who are we?)
- motivation, legitimization (why do we do the work?)
- communication (to whom do we talk?)
- coordination (with whom do we work?)
- development (what are the perspectives?)

If all or most of these functions are supported by the culture, the organization can better adapt to environmental changes and realize innovations (Denison 1990; Kotter & Heskett 1992). Since many universities are facing new developments, strategies have to be developed in order to set the guidelines for dealing with changing internal and external conditions (Keller 1983). Hence, management can use these cultural dimensions for their strategic planning activities. The resulting strategies should be based upon an analysis of the culture, a definition of the mission and a clarification of the purpose of the institution.

University culture gains influence in two ways during this process. First, a strong culture can serve as a basis for adaptation by providing support for strategic management. Second, the successful implementation of a strategy is dependent on the orientation, whether external or internal, of the underlying culture (Arnold & Capella 1985). Consequently, the relevant cultural dimensions of this study are the strength and the orientation of the culture. These have been identified among the most important variables when it comes to

academic planning (Keller 1983) and adaptation (Cameron 1984; Arnold & Capella 1985; Denison 1990).

Strength implies the degree of fit between cultural values, structural arrangements, and strategic plans (Bleicher 1991; Cameron 1991). A strong culture has a high degree of congruence between the values and goals of the organizational members, the hierarchical integration and the strategies. It helps to implement a strategy effectively. Generally speaking, in a strong university culture almost all administrators and faculty share a set of relatively consistent values and methods of “doing business” (Kotter & Heskett 1992).

Weak cultures are characterized by relatively loosely linked subunits or groups with specific cultures that can be contradictory to each other. They are called subcultures. Depending on the degree of linkage between the subcultures, universities have more or less problems to develop a unified strategy for the institution that can be put into action quickly. Depending on the environmental situation universities are facing, strong or weak cultures can be more effective (Denison 1990).

Orientation refers to the focus of the values, attitudes, beliefs, and patterns of behavior of university members. The underlying assumption is that externally focused cultures support the adaptive strategies of management better than internally focused cultures. Denison (1990) describes this dimension as the point of reference and uses it – together with the environmental condition – for the integration of different cultural concepts.

Internally focused cultures concentrate on the internal dynamics of the organization. This can mean that the involvement of university members and their tasks in bureaucratic processes as well as the consistency between strategic and structural issues have priority over external challenges. This orientation toward control and stability probably best serves a situation in which an organization has established a limited but appropriate response set that is well suited to a stable environment (Denison 1990).

Externally focused cultures put more emphasis on the external development of the organization. In this respect, adaptability and mission statements are of major concern. Adaptation refers to the process of responding to some discontinuity or lack of fit that arises between the organization and its environment (Cameron 1984). A mission represents a shared definition of the function and purpose of an organization and its members. In a changing environment, an externally focused culture can fulfill these tasks more easily.

The relationship between university culture and strategic management is shown in Figure 1. The basic assumption of this work is that universities as complex social organizations are dependent on the external environment and that the culture plays a major role for strategic management. Thus, the paper is based on the contingency approach (Lawrance & Lorsch 1986) and

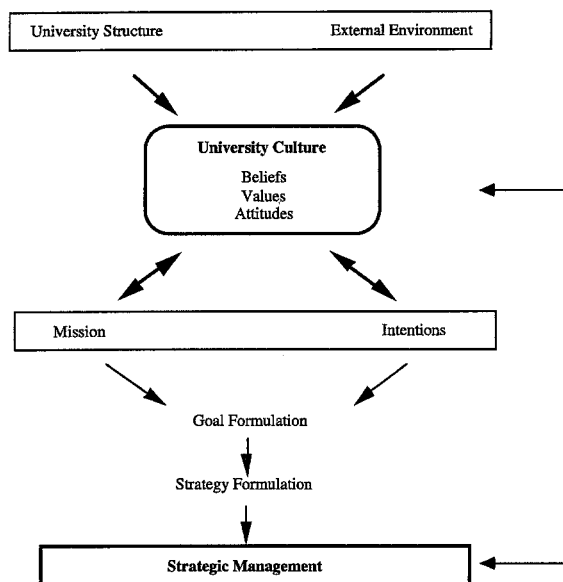


Figure 1. Relationship between university culture and strategic management.

emphasizes the feedback process between culture and management (Schwarz 1989; Schein 1985).

The specific external environment and the university structure lead to the development of a distinctive academic culture. This culture contains special beliefs, values, and attitudes exhibited by the university members. Mission statements and intentions for decision-making are the basis for the formulation of university goals and eventually strategies. Depending on the culture, the academic mission and intentions will be influenced and over time will effect the culture as well. If for example the culture is more internally focused and has decentralized characteristics the mission as well as the intentions will concentrate on internal effectiveness and autonomy of departments. Goal and strategy formulation as part of strategic management can therefore be limited to certain alternatives which fit the culture. Through culturally sensitive management the culture itself can be influenced.

Assessing the culture and integrating the results in management processes enhances the possibilities of cultural changes. A university with very strong subcultures can – once realized – be developed into a more unified institution by initiatives that trigger a higher degree of identification. Involving a diverse and large number of university members into a strategic planning effort is only one example. Generally, the central idea of understanding university

culture is “to minimize the occurrence and consequences of cultural conflict and help foster the development of shared goals” (Tierney 1988).

This is not postulating that the existence of subcultures per se is detrimental for the survival of the organization. A uniform behavior of the institution as a whole is not a prerequisite for adaptation. Actually, the university’s capacity to innovate and adapt was built upon the formal network of disciplines and professions, as well as the informal network of academic work. But the new demand upon the university, however, are of a scale and complexity that require strategies at the collective level of university life (Dill & Sporn 1995b). The challenge is to integrate all activities of the subcultures so that they can be used for diverse management purposes on a comprehensive level.

Empirical study

The culture of an organization is difficult to assess objectively because it is grounded in the taken-for-granted, shared values and beliefs of individuals and groups in the organization. Many researchers have tried to analyze culture by observing patterns of behavior, listening to organizational stories, or conducting in-depth interviews (Masland 1985; Cameron & Freeman 1991). Others suggest using rather indirect methods such as observation, construction of typologies, or multivariate methods (Drumm 1988; Peterson *et al.* 1986).

In this study, the problem of measuring university culture regarding its strength and orientation was solved by using a mix of methods (Sporn 1992). On the one hand, existing research reports of the *Wirtschaftsuniversität Wien* were analyzed concentrating on the strength as well as the orientation of the culture (i.e. secondary data). On the other hand, the communication patterns of the university departments and members were assessed by studying the formal flow of internal mail (i.e. primary data). Here, mainly the strength of the culture shown by the intensity of communication was studied. In addition, the experiences and observations of the author who served as an assistant to the rector for two years became part of the study. Altogether, the interpretation of the diverse empirical findings about the university culture resulting from primary and secondary research reports at the *Wirtschaftsuniversität Wien* led to the development of a cultural typology accompanied by implications for management.

The approach to organizational culture used in this study tries to understand culture from the perspective of participants in the institution. The attitudes of university members help to reveal the underlying culture. For this purpose, four official studies of the *Wirtschaftsuniversität Wien* were examined to understand the values, beliefs, and patterns of behavior at the university

concentrating on their orientation and also on the strength. The methods used to create these studies were mainly interviews and surveys within the university. In this paper a summary of the findings of these studies is presented. The studies included: an analysis of the organization of research; results from an analysis of the participation of university members in university-wide management and committee work; a research report on the attitudes of university members; and a report on the organization of teaching and research at the *Wirtschaftsuniversität Wien* (Sporn 1992).

Beside these existing university studies, the second source of data originated from a communication analysis conducted for this research concentrating on the internal contacts between academic and administrative units. Major objective was to identify the strength of the culture by clustering the different units based upon the intensity of communication as an indicator for the existence of subcultures at *Wirtschaftsuniversität Wien*. The underlying assumption was that culture can be understood by analyzing communication patterns. While university members are communicating, accepted values and beliefs are transmitted (Schall 1983). The intensity and extent of the communication patterns help reveal aspects of university culture.

The analysis of the formal communication patterns used the written, formal, internal mail. Of course telephone, personal contacts, or even electronic mail – although at the time of the field work it was not that widely spread – would have been other sources of data. Also, the interaction with the external environment through mail could have added to the analysis. Because of major financial and time constraints only the formal, internal communication patterns were part of the study. Another restriction was the content of the mail. Given certain security standards, the content of the internal post could not be assessed. Since all academic and administrative units of *Wirtschaftsuniversität Wien* were located in one building at the time of the study, geographical distance did not play a role in the form of communication.

So, the quantitative communication analysis investigated the degree of written contacts (i.e. volume not content of mail) between university units and members of the *Wirtschaftsuniversität Wien*. The internal postal system with its envelopes was used to identify message senders and recipients during the three months of June, September and October in 1989. The data was differentiated by administrative and academic units as well as by the position held at the university, e.g., full professor, associate professor, assistant professor and administrative staff. By random-sampling 70 envelopes every day during that period, information about more than 4000 written contacts was gathered.

The data was then transferred into a spreadsheet and analyzed by multidimensional scaling using the SAS application ALSCAL. The method of

multidimensional scaling makes it possible to show the data from a three-dimensional perspective (Dichtl & Schobert 1979). The distance between the different units shows similarities and differences as well as the intensity of the communication patterns. By interpreting the map generated by ALSCAL, valuable results were gained (Figure 2) that mainly made interpretations of the strength of the culture possible.

ALSCAL allows an interpretation by analyzing the distance of the units depicted. Consequently, the units on the map (Figure 2) shown closer to each other have more contacts than the ones further apart. Also, units that are located closer to the center of the map have more overall contacts than the ones on the periphery. Additionally, the axes drawn can be rotated in order to get reasonable results. Each of the axes can then be named and interpreted. This process is done by the researcher capitalizing upon the knowledge of the institution. In this study, the experience of the author as assistant to the rector of *Wirtschaftsuniversität Wien* was used accordingly.

In order to understand the culture of a university it is helpful to use as many sources of data as possible. This work tried to achieve this goal by getting different information about the culture. It is important to note that the results can only be read all together without any one source showing the ultimate culture. Only through the combination of all the research reports the results can be interpreted correctly.

Results

After introducing the methodology of this paper, the results regarding strength (= fit between cultural values, structural arrangements, and strategic plans within the whole university) and orientation (= focus of the values, attitudes, beliefs, and patterns of behavior of university members) of the university culture at *Wirtschaftsuniversität Wien* are described. As mentioned earlier, there is primary and secondary data used for analysis. The existing research reports are the source for the secondary data. These can provide information about the strength as well as the orientation of the university culture. The results of these reports show that different groups have divergent interests depending on their position and ambitions.³ The primary data derives from an analysis of the formal communication patterns conducted by the author of this paper. The results from this communication analysis help to interpret the strength of the culture by showing the coupling of different academic and administrative units (= clustering due to communication intensity). Here only summaries are presented to be followed by a discussion of the results.

As mentioned earlier, the reports include analyses of the organization of teaching and research, the participation of university members in university-

wide management and committee work, and attitudes of university members at Wirtschaftsuniversität Wien. The results reveal important material regarding the university's culture. Here is summary of the most important findings:

- The values and beliefs concerning the mission and aims of university activities are divergent.
- There are no general guidelines on how to manage teaching and research.
- The concept of the university as a whole barely exists and has no meaning for the university members.
- Depending on the hierarchical position within the university, professors, assistant professors, and administrators form subcultures.
- The values and beliefs of these subcultures differ significantly. Professors try to establish a reputation in the scientific and business communities. Assistant professors have different attitudes and beliefs depending on their career ambitions. Therefore, their values are heterogeneous and their involvement in the management of the university is low.
- Because administration is directly subordinate to the Austrian Ministry of Science and Research, administrative units are dominated by ministerial aims and objectives.
- Motivation and control by the university management is almost non-existent and therefore administrative departments are poorly integrated. Their patterns of behavior are concentrated on the correct functioning of the offices and the execution of committee decisions.

The summary of the results from these research reports uses the two relevant cultural dimensions – strength and orientation – of this work. The overall university culture at Wirtschaftsuniversität Wien can be seen as weak (i.e. many subcultures) with different orientations (i.e. internal and external focus) depending on the units and members.

The subcultures of professors and assistant professors have divergent values and beliefs depending on their ambitions. All of them show an external focus only in different directions either more towards business or towards other academic institutions or colleagues. Especially the researchers with plans for an academic career form disciplinary subcultures within Wirtschaftsuniversität Wien.

The university administration with its different units also form a subculture. Here the major point of reference is internally oriented. Administrative units have comparable values and norms and they are dominated by an internal view. Management tasks are only slowly accepted within the administration of Wirtschaftsuniversität Wien. Execution of university or ministerial decisions and bureaucratic procedures dominate their work.

The second source of information was the communication analysis done with ALSCAL. This analysis shows the strength of a culture by visualizing

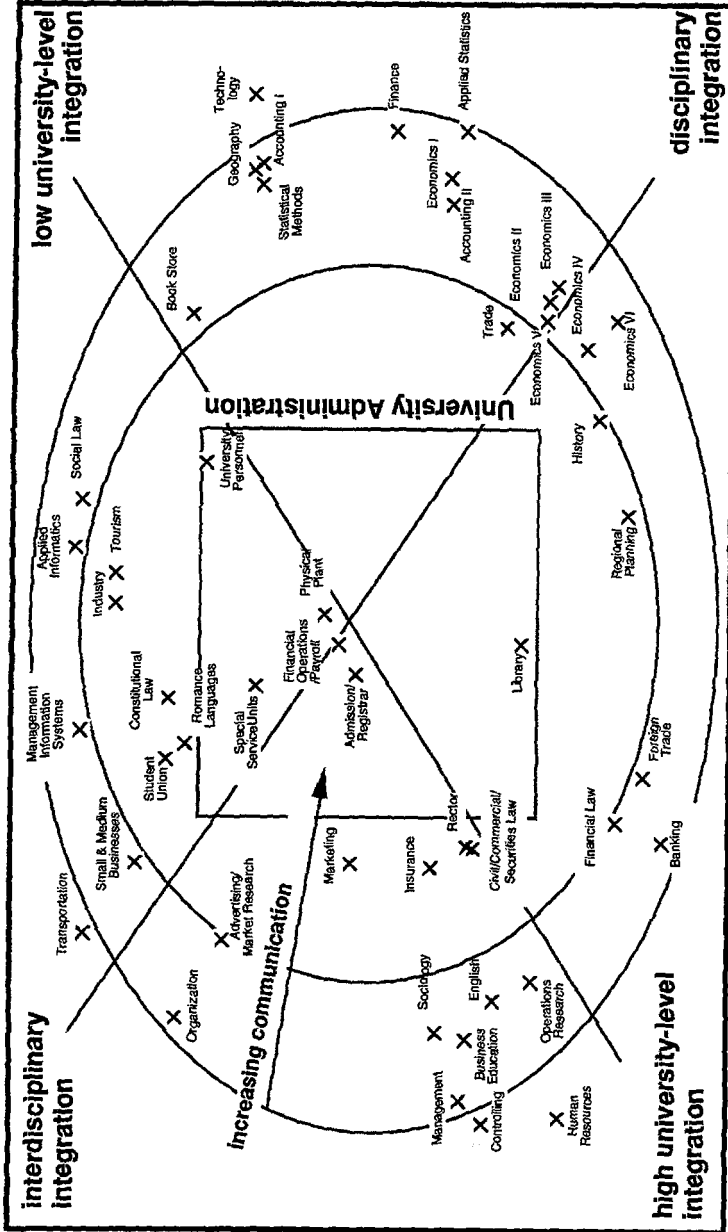


Figure 2. Formal communication pattern at the Wirtschaftsuniversität Wien.

patterns of communication (i.e. clusters) between units. Consequently, the overall communication structure (Figure 2) was more relevant to the analysis than single contacts. The intensity of overall contacts for a unit was shown by the distance from the center of the map. The frequency of contacts between various units was depicted by the closeness of different departments. This means that the closer a unit is to the center the more frequent its communication; the less distance there is between departments the more intense are their contacts. For this reason, units positioned on the outside border generally had less communication with everybody else than the ones close to the center. In other words, the map can be seen as a picture of concentric circles with the intensity of communication rising the closer a department gets to the center.

The communication structure for Wirtschaftsuniversität Wien (Figure 2) reveals the center of communication as the university administration and its departments. For example the map shows that there was a lot of information flow between Admissions/Registrar and the Office of the Rector as opposed to the communication between the Department of Controlling⁴ and Admissions/Registrar. Generally speaking, Personnel, Payroll, Special Services, Physical Plant, Admissions/Registrar, and the Library were the center of postal contacts for all other university units. A possible explanation is the central role of administration on a daily basis when it comes to course registrations, enrollments, or salary issues. All academic departments need to communicate with these administrative units in order to fulfill their tasks. Therefore, the administrative units form one subculture and are connected with everybody else.

The map in Figure 2 also shows axes that have to be interpreted by the researcher. The results from the existing reports already showed that Wirtschaftsuniversität Wien is dominated by subcultures. Also, the first results of the communication analysis concentrating on the strength indicated the existence of subcultures at Wirtschaftsuniversität Wien and the importance of university administration. So, integration served as an indicator for the forming of these subcultures. Two directions that are commonly identified as integrating mechanisms where used in this research namely the discipline and the whole university.

The interpretation of Figure 2 derives from the fact that at Wirtschaftsuniversität Wien the clusters of the map match real disciplines (= disciplinary integration) and the involvement in university-wide management issues of different units or members (= university-level integration). Also, the experiences of the author as an assistant to the rector during the time of the study was a helpful tool to interpret the results. Four clusters where found to be relevant in the analysis: interdisciplinary integration, disciplinary integration, low university-wide integration, and high university-wide integration.

Taking these clusters, an interpretation of Figure 2 becomes possible. For example, units with a disciplinary focus like the Departments of Economics form one cluster (= disciplinary integration). Units with a high university-level integration like the Departments of Business Education or Controlling form a separate cluster (= high university-level integration). Departments that have interdisciplinary interests like Transportation or Organization or that are hardly integrated with the university level like Geography or Statistical Methods define the two other clusters (= interdisciplinary and low university-wide integration). Actually, these two clusters can be seen as a conglomerate of communicating departments that have little or no contact with other clusters or departments.

In other words, a unit like the Office of the Rector is a high communicator and certainly integrated university-widely as shown by the position on the map. Opposed to that, the Department of Management Information Systems has little contact with administrative units and a more interdisciplinary focus of its communication. The Controlling Department belongs to the group that is integrated university-widely. This is due to the fact that certain individuals in the Controlling Department were strongly involved in overall university activities during the period investigated.

To summarize, the dimensions dominating the results of the multidimensional scaling tool ALSCAL in Figure 2 – disciplinary and university-level integration as well as communication intensity – allow the positioning of each academic and administrative unit within the map. The clusters developed can be interpreted as subcultures within the university that are distinguished by their university-wide and disciplinary integration. Therefore, the communication patterns facilitate insights into the strength of the culture. It can be said that *Wirtschaftsuniversität Wien* is dominated by subcultures that are loosely linked with regard to their formal communication pattern. Also, there are some units that interact more than other departments. This shows that disciplinary ties exist that hold certain groups together but other departments are very “individualistic” in their communication behavior. University administration plays a central role when it comes to communication and forms one subculture consisting of its different offices (e.g. Admission/Registrar, Financial Operations/Payroll). It could even be said that administration forms a strong subculture within *Wirtschaftsuniversität Wien*.

Putting the results of the two sources – primary and secondary data – together leads to a more thorough description of the culture at *Wirtschaftsuniversität Wien*. In order to assess the cultural strength as well as the orientation of academic and administrative units a discussion of the findings follows.

Discussion

Every organization has a culture. Whereas some cultures help an organization cope with environmental changes, others can obstruct necessary adaptation to external changes (Arnold & Capella 1985; Denison 1990; Kotter & Heskett 1992). A typology of four different types of university cultures – based on the work of Arnold and Capella – allows the evaluation of any specific institution regarding its adaptation abilities. The two dimensions of this typology are the strength and the orientation of the university culture (Figure 3). As shown, these dimensions are suitable for the investigation of the culture's abilities to support strategic management and to guarantee a fit between strategy and culture. Since strength as well as orientation of university culture are relevant for the adaptation to environmental changes, the different types derived from the typology can help to make strategic management more effective (Denison 1990; Cameron 1991; Kotter & Heskett 1992). The basic assumptions are that:

- strong cultures are more successful than weak ones, and
- externally oriented cultures are more capable of adapting to environmental changes.

This study developed four different types of university culture that support adaptation as the process of responding to discontinuity between universities and their environment in different ways. They can be described as follows.

Weak, internally-focused cultures have divergent values, beliefs, and attitudes. They are dominated by subcultures with their work being concentrated on internal affairs. The university members concentrate on their own work and do not identify with the university as a whole. Few members of the university community are willing to adapt the university to changing conditions in the environment.

Weak cultures with an external orientation also have subcultures with divergent values and beliefs, but the subcultures are focused on the external environment. However, the activities of the different subcultures are not coordinated. With this orientation, the university can still adapt in a changing environment. To stay successful though, a strong university culture will have to be developed while the external orientation is retained.

In **strong, internally-focused cultures**, uniform values, beliefs, and attitudes dominate. The university members and groups generally share the same patterns of behavior and values concerning internal activities. Organizational adaptation to external changes is only poorly supported by the culture. This type of culture is adequate in stable environments, but it will encounter problems as soon as external changes arise.

The members of **strong and externally oriented cultures** share the same values, beliefs, and attitudes. Their activities are externally oriented. They

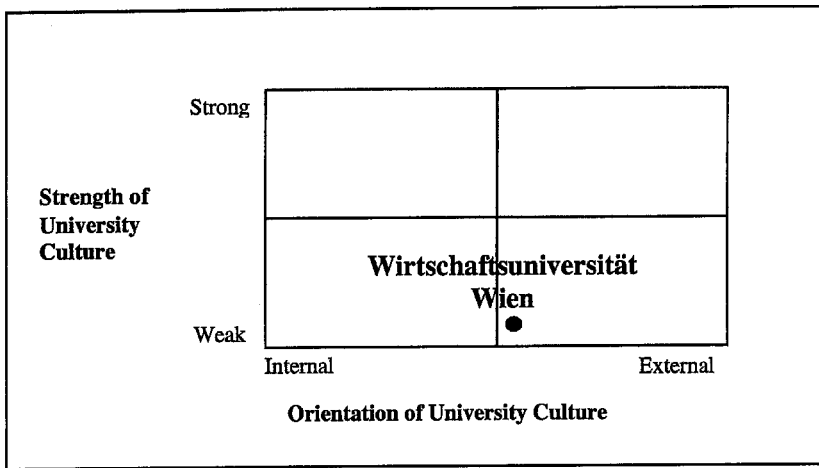


Figure 3. Typology of university culture.

show the same patterns of behavior and they have the capability of reacting flexibly to changes. This cultural type is the most suitable for enhancing adaptation. Although this culture can consist of subcultures, they are integrated in the university as a whole. In this situation the university can reach its goals effectively by coordinated activities of the subcultures.

To interpret the results of the empirical analysis, Wirtschaftsuniversität Wien can be positioned in the typology (Figure 3). Thereby, it is evident that a weak culture with divergent orientations of its subcultures falls in the lower right quadrant of the graph. This position then helps to assess the culture and interpret the consequences for the Wirtschaftsuniversität Wien.

The situation at Wirtschaftsuniversität Wien is complex. On the one hand, the existing subcultures with their specific values and beliefs guarantee a certain degree of freedom concerning the development of new ideas in teaching and research. Restrictions only emerge from small groups like professors who determine the strategies and aims. On the other hand, the missing guidelines for the university as a whole make it difficult for university members to base their work on an overall standard and to identify with the university mission. Other organizational categories or subgroups like professors or departments are used to define expectations and standards. Except for administration, the culture at Wirtschaftsuniversität Wien is externally oriented. The expectations of constituencies like students, businesses, or other interested stakeholders are taken into consideration. Since there are no general standards for dealing with the environment, this works on a flexible but individual level.

The advantages of strong cultures like shared meaning or identification are missing at Wirtschaftsuniversität Wien. There, the existing subcultures make

it difficult for the members to be motivated by belonging to the university and to work in a goal-oriented way. In this culture, certain individuals, like professors, or certain units, like departments, have more importance and influence.

The environment plays an important role at *Wirtschaftsuniversität Wien*. The responsibility as an institution for education and research is taken seriously by refined curricula, exchange programs with universities world-wide, or research projects with companies. Only the standards for a collective reaction to the external changes are missing. The subcultures concentrate on their own activities and the development of a specific image. That way, it is impossible to establish a strategy for the whole university to deal with its environment. On the contrary, the culture is dominated by heterogeneity and diversification. It is more important for the members to define specific values for their internal and external activities than to get involved in the overall university management. Problems can arise from the increasing complexity of the changes.

Management implications

After reviewing the theoretical and empirical background of this study, management challenges caused by university culture can be addressed. The overall goal of any management action should be the maintenance of a dynamic equilibrium between culture, structure, strategy, and environment in order to support constant organizational adaptation (Cameron 1984; Chaffee & Tierney 1988). Problems still arise because administrators have a one-dimensional perspective focusing on traditional management agendas. Tasks like goal setting, strategy formulation or resource allocation are of main interest whereas cultural problems remain more or less unconsidered. Instrumental variables are still more important for the university management than symbolic actions. Ulrich (1984) like Dill (1982) proposed integrating these two perspectives into a management that is culturally sensitive and at the same time strategic. As suggested in this paper, universities should apply a form of strategic cultural management.

The linkage of organizational culture with university management has strategic as well as social implications. On the one hand, by understanding and developing cultural conditions universities can become more competitive. On the other hand, with an increased focus on cultural issues a unifying culture can develop that enhances identification, motivation, and the match between organizational and individual values of the university members (Schwarz 1989). For university managers the task is to reflect the culture of their

institution and develop it in that direction. Strategies will become easier to implement and the organization can better adapt to changes.

In the case of *Wirtschaftsuniversität Wien* a more strategic and cultural management helps to interpret certain problems inside the university and offers alternatives regarding how to solve these issues. Social integration of the different subcultures and the development of orientation and meaning for the university members should be the result (Dill 1982). To achieve this goal, university leaders have to locate internal contradictions, develop a comparative awareness, and clarify the identity of the institution by communicating (Chaffee & Tierney 1988). This obviously calls for new cognitive abilities of academic administrators. A functional or more integrative view of university management influences the style of dealing with a specific university culture.

Functional approaches see organizational culture as an instrument for strategic planning (Deal & Kennedy 1982). Accordingly, culture will be used as a tool for leadership, goal attainment, and management. By consciously shaping the social environment through policies such as “walking around” or “open doors”, leaders can try to influence the perception of reality inside universities. Culture in that sense serves as a success factor for management and is implemented in a top-down process. Consequently, top level university administrators like presidents, rectors, or deans play a very important role according to the functional approach. Culture is operationalized in order to meet institutional objectives and organizational members are manipulated to fit strategic goals. But this authoritarian form of cultural management is unlikely to result in university members being highly motivated or identifying with a new strategy. The reason for this negative effect is insufficient consideration of the relationship between organizational culture and leadership.

A dual perspective of cultural management combines functional and symbolic aspects (Dill 1982; Tierney 1988; Ulrich 1984). On the one hand, techniques of a functional approach are practiced. Strategic planning and marketing are two examples. But on the other hand, culture is seen as an area that has to be developed by communicating meaning and supporting integration as well as identification (Dill 1982). This enables the university to deal with uncertainty and complexity of the internal and external environment in a more adequate fashion.

Conclusions

Universities face changing conditions in the environment. Different constituencies have altered their expectations and needs. Also, the internal structures and processes seem to be inadequate for meeting new challenges. By

integrating a cultural perspective into managing universities the understanding for specific problems should increase.

This paper set out to investigate the relationship between university culture and different management approaches. Attention to university culture is important because of evidence of increasing organizational atomization and external vulnerability. A typology was developed endorsing a new interpretive model for cultural analysis. Thereby, the main focus lies on the strength and the orientation of the culture. Any university can be positioned within the model and implications for management can be drawn. The case of the *Wirtschaftsuniversität Wien* shows a university dominated by subcultures that are internally as well as externally oriented.

As a result, a dual view of cultural management is proposed. Symbolic actions like communication of meaning and creation of identity should have the same priority as functional areas like marketing or planning. Once administrators accept this relationship, universities can become more flexible to changes and strong enough to survive constrained periods.

Notes

¹ In his work Mintzberg used the term “adhocracy” for describing organizations with a flat structure dominated by professionals and experts. In this paper the term was replaced by “expertocracy” in order to emphasize the role of experts, namely professors, within universities.

² The *Wirtschaftsuniversität Wien* is the federal university of economics and business administration of Vienna, Austria, with 20,000 students enrolled.

³ The detailed description of the results can be found in the book about this subject (Sporn 1992). Because of space constraints only a summary of the most important findings is presented here.

⁴ This Department is an academic unit concentrating on teaching and research about control systems and business management.

References

- Arnold, R.A., and Capella, L.M. (1985). ‘Corporate culture and the marketing concept: A diagnostic instrument for utilities’, *Public Utilities Fortnightly* 116(8), 32–38.
- Baldrige, J.V., Curtis, D.V., Ecker, G.P. and Riley, G.L. (1977). ‘Alternative models of governance in higher education’, in Riley, G. L., Baldrige, J.V. (eds), *Governing Academic Organizations*. Berkeley: McCutchen Publishing Corporation, pp. 2–25.
- Baldrige, J.V. (1971). *Power and Conflict in the University*. New York: John Wiley.
- Becher, T. (1981). ‘Towards a definition of disciplinary cultures’, *Studies in Higher Education* 6, 109–122.
- Birnbaum, R. (1988). *How Colleges Work: The Cybernetics of Academic Organization and Leadership*. San Francisco: Jossey-Bass.
- Bleicher, K. (1988). ‘Zum Verhältnis von Kulturen und Strategien der Unternehmung (About the relationship between culture and strategy of corporations)’, in Dülfer, E. (ed.), *Organisationskultur (Organizational culture)*. Stuttgart: C.E. Poeschl, pp. 98–120.

- Cameron, K. (1978). 'Measuring organizational effectiveness in institutions of higher education', *Administrative Science Quarterly* 23(4), 423–443.
- Cameron, K. (1984). 'Organizational adaptation and higher education', *Journal of Higher Education* 55, 122–144.
- Cameron, K., Mets, L., Peterson, M., Jones and Ettington, D. (1986). *The Organizational Context for Teaching and Learning: A Review of the Research Literature*. Ann Arbor: National Center for Research to Improve Postsecondary Teaching and Learning, University of Michigan.
- Cameron, K.S. and Freeman S.J. (1991). 'Cultural congruence, strength, and type: relationships to effectiveness', *Research in Organizational Change and Development* 5, 23–58.
- Chaffee, E.E. and Tierney, W.G. (1988). *Collegiate Culture and Leadership Strategies*. New York: Macmillan.
- Clark, B. (1960). *The Open Door College: A Case Study*. New York: McGraw-Hill.
- Clark, B. (1970). *The Distinctive College: Antioch, Reed and Swarthmore*. Chicago: Aldine.
- Clark, B. (1972). 'The organizational saga in higher education', *Administrative Science Quarterly* 17, 178–183.
- Clark, B. (1983). *The Higher Education System: Academic Organization in Cross-National Perspective*. Berkeley: University of California Press.
- Clark, B. (1995). 'Complexity and differentiation: The deepening problem of university integration', in Dill, D. and Sporn, B. (eds), *Emerging Patterns of Social Demand and University Reform: Through a Glass Darkly*. Oxford: Pergamon, pp. 159–169.
- Cohen, M.D. and March, J.G. (1974). *Leadership and Ambiguity*. New York: McGraw-Hill.
- Deal, E. and Kennedy, A. (1982). *Corporate Culture: The Rites and Rituals of Corporate Life*. Reading: Addison-Wesley.
- Denison, D. (1990). *Corporate Culture and Organizational Effectiveness*. New York: Wiley.
- Dichl, E. and Schobert, R. (1979). *Mehrdimensionale Skalierung (Multidimensional Scaling)*. München: Vahlen.
- Dill, D.D. (1982). 'The management of academic culture: Notes on the management of meaning and social integration', *Higher Education* 11, 303–320.
- Dill, D.D. and Sporn, B. (1995). *Emerging Patterns of Social Demand and University Reform: Through a Glass Darkly*. Oxford: Pergamon.
- Dill, D.D. and Sporn, B. (1995a). 'The implications of a postindustrial environment for the university: An introduction', in Dill, D.D. and Sporn, B. (eds), *Emerging Patterns of Social Demand and University Reform: Through a Glass Darkly*. Oxford: Pergamon, pp. 1–19.
- Dill, D.D. and Sporn, B. (1995b). 'University 2001: What will the university of the twenty-first century look like?', in Dill, D.D. and Sporn, B. (eds), *Emerging Patterns of Social Demand and University Reform: Through a Glass Darkly*. Oxford: Pergamon, pp. 212–236.
- Drumm, H.J. (1988). 'Probleme der Erfassung und Messung von Unternehmenskultur (Problems of assessing and measuring organizational culture)', in Dülfer, E. (ed.), *Organisationskultur (Organizational culture)*. Stuttgart: C.E. Poeschl, pp. 130–148.
- Keller, G. (1983). *Academic Strategy: The Management Revolution in American Higher Education*. Maryland: The Johns Hopkins University Press.
- Kotter, J. and Heskett, J. (1992). *Corporate Culture and Performance*. New York: The Free Press.
- Lawrance, P.R. and Lorsch, J.W. (1986). *Organization and Environment*. Boston: Harvard Business School Press.
- Maassen, P. (1995). *The Concept of Culture and Higher Education*. Zurich: Paper presented at the 17th Annual EAIR Forum.
- Masland, A.T. (1985). 'Organizational culture in the study of higher education', *Review of Higher Education* 8(2), 157–168.
- Millett, J. (1962). *The Academic Community*. New York: McGraw-Hill.
- Mintzberg, H. (1982). 'Organisationsstruktur: modisch oder passend (Organizational structure)', *Harvard Manager* 2, 12–13.

- Ouchi, W.G. and Wilkins, A.L. (1985). 'Organizational culture', *Annual Review of Sociology* 11, 457–83.
- Peters, T.J. and Waterman, R.H. (1982). *In Search of Excellence*. New York: Harper & Row.
- Peterson, M. and Spencer, M. (1991). 'Understanding organizational culture and climate', in Tierney, W.G. (ed.), *Assessing Academic Climates and Cultures*. San Francisco: Jossey-Bass, pp. 3–18.
- Reisman, D., Gusfield, J. and Gamson, Z. (1970). *Academic Values and Mass Education: The Early Years of Oakland and Monteith*. Garden City: Doubleday & Company, Inc.
- Schall, M.S. (1983). 'A communication-rules approach to organizational culture', *Administrative Science Quarterly* 28, 559–570.
- Schein, E. (1985). *Organizational Culture and Leadership: A Dynamic View*. San Francisco: Jossey-Bass.
- Schwarz, G. (1989). *Unternehmenskultur als Element des strategischen Managements (Organizational culture as part of strategic management)*. Berlin: Dunker & Humblot.
- Sporn, B. (1992). *Universitätskultur – Ausgangspunkt für eine strategische Marketing-Planung an Universitäten (University culture and its implications on strategic marketing planning)*. Heidelberg: Physica.
- Stroup, H. (1966). *Bureaucracy in Higher Education*. New York: Free Press.
- Tierney, W.G. (1988). 'Organizational culture in higher education: Defining the essentials', *Journal of Higher Education* 59(1), 2–21.
- Ulrich, P. (1984). 'Systemsteuerung und Kulturentwicklung (System management and culture development)', *Die Unternehmung* 38(4), 316–322.
- Weick, K. (1976). 'Educational organizations as loosely coupled systems', *Administrative Science Quarterly* 21, 1–19.