

# THE PROCESS OF CHANGE IN UNIVERSITY MANAGEMENT: FROM THE “IVORY TOWER” TO ENTREPRENEURIALISM\*

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## Abstract

The article aims to provide a retrospective overview of the changes experienced by the management of universities in their recent histories. In describing this type of organization, it was possible to understand the complexity inherent to universities. After briefly detailing the more traditional university management models, we proceed to discuss the need for organizational change based upon the most recent management approaches. Among the new types of university, the entrepreneurial university stands out as a good option for changing university organizations worldwide. However, university management has yet to be subject to sufficient research since there are a series of shortcomings that need answering. Finally, we set out a list of future research options with the objective of completing those answers as well as stimulating research on this theme important to the university itself or to society in general.

## 1. Introduction

The university is a fundamental institution within the scenario of globalization both because it produces (its research mission) and conveys (its teaching and community service missions) knowledge for contemporary society (Bell, 1973; Kerr, 1995). Universities and other higher education entities are complex organizations that together constitute one of the world's largest industrial sectors even if operating in ways strange to the majority of companies (Birnbaum, 1988). They represent complex multi-structural entities that would ideally be that institutional arrangement that best enables functionality and reacts to the needs and expectations of the surrounding environment, as well as their stability and their strategies (Newton, Burgess and Burns, 2010).

Furthermore, universities are an organizational type that engages in fairly unusual activities, and demands specific management practices. Their main objectives involve the creation and dissemination of knowledge (through research and teaching) and responding to the needs of communities whether internally or externally (Clark, 1983). They bring about learning, culture, socio-economic development and improve standards of living across society (Lazzeretti and Tavoletti, 2006). In order to attain their objectives, they establish targets to be attained, set out strategies and continuously strive to perfect their management processes (Bok, 2003).

The main challenge is certainly to meet all the demands placed upon a university, whether in terms of achieving its mission, or in attaining the financial results able to demonstrate competence in its deployment of scarce resources (Bowen and Fincher, 1996). Universities are deemed an important ingredient to innovation in knowledge societies and, as such, are subject to important changes inasmuch as they prove capable of moving on from being producers and guardians of knowledge for their own good and become institutions for the transfer of knowledge to the economic system. Thus, the concept of conveying knowledge has become as relevant to the university mission as the actual creation of knowledge (Gassol, 2005).

Therefore, taking into consideration this importance of the university system to society, as well as its peculiar characteristics, the objective of this article is to provide a retrospective overview of the changes in management of university in its recent history. In this way, we may ascertain its current position within the management field, thereby demonstrating that there is still much to be done whether in the academic field or in the actual daily practices of university organizations.

In order to attain the objectives set, we begin by detailing how universities are structured and organized. Following this, we set out the traditional forms of university management before moving on to demonstrating the need for change in the management of these organizations and the most recent models set out in the literature for the modernization of university management. Then, we explain the difficulty in carrying out changes in universities before detailing the most recent types of universities with a particular emphasis on the entrepreneurial university. The article ends with some final considerations and a reflection on the challenges facing universities in the context of the advances of the 21<sup>st</sup> century.

## 2. University organization

Baldrige (1980) describes faculties and universities as complex institutions with fragmented professional teams that use a vast range of abilities to deal with routine problems. In general, academic members of staff hold broad knowledge and experience on a specific domain or sub-field, which endows them with authority for making the decisions within an institution (Baldrige *et al.*, 1977). This complexity is explained by Scott (1992) as being an explanatory factor in problems such as the slowness of decision making processes, internal bureaucracy, corporatism and unprofessional management carried out by individuals not necessarily equipped with the competences for such purposes. This position was later strengthened by the findings of works of Sporn (1998) and Jenks and Riesman (2002).

Within a similar perspective, Lockwood (1985) conceives the university as a complex organization due to the following characteristics: the complexity of objectives, the limited capacity to measure results, the autonomy of the professionals forming the core of the organization, a diffused structure of authority and an internal fragmentation. According to Pollock and Cornford (2004), the university is a set of academics that together discover and pass on knowledge, governed by a collegial model, based upon a complex structure of committees and featuring a high degree of individual and departmental autonomy. Taking a more recent perspective, Wagner and Newell (2006) see the university structure as designed to meet the needs of various stakeholders.

Van Vught and Maassen (1992) identify some of the fundamental characteristics of universities, specifically:

- their main activities are based upon knowledge;
- a highly fragmented department structure, due to the division by subject field, the organization of knowledge and research methodologies;
- decision making processes are highly diffused, with different university sub-units concerned with their own objectives and targets, and neither respecting, nor aligned with organizational strategy;
- within each specific academic field, universities may be innovative and adaptable even while the majority of innovations are incremental. Nevertheless, at the structural level, the university is highly resistant to change; and
- clearly, these organizational characteristics cannot be separated from the surrounding environmental conditions impacting on universities.

In summary, universities may be seen to display: ambiguity in targets and objectives, a lack of definition in the division of labor, problems with authority, the non-coordination of decision making powers, an excess of personal styles, a lack of precision in communication and institutional interaction between its internal and external environments (Cohen and March, 1974; Becher and Kogan, 1992). Therefore, there is an inherent complexity to the organizational structure of universities, with a variety of processes and independent activities, which are simultaneously interrelated. In order to demonstrate this organizational complexity, Table 1 sets out a comparison between universities and regular companies.

**Table 1:** Comparison between universities and regular companies

| Characteristics         | University   | Company   |
|-------------------------|--|---|
| OBJECTIVES              | Multiple<br>Rendering of services (public and/or nonprofit)<br>Variable  | Defined<br>Economic (profits)<br>Consensual   |
| TECHNOLOGY              | Produce knowledge and not technology   | Defined   |
| STRUCTURE               | Centralized bureaucracy (smaller scale universities)<br>Decentralized bureaucracy (larger scale universities)<br>Hierarchies based upon meritocracy as criteria                                | Hierarchical<br>Clearly defined<br>Power and property<br>Centralized structure (small companies)<br>Decentralized structure (large companies)   |
| PARTICIPANTS            | Rotational leaders<br>Professors<br>Students and employees   | Shareholders<br>Management<br>Technical staff and employees   |
| CLIENTS                 | Students<br>Community in general<br>Academic community   | Companies<br>Population   |
| PRODUCT                 | Difficult to measure   | Quantifiable  |
| ADMINISTRATION          | Recent performance standards<br>Limited utilization of administrative principles<br>Less rationality in the usage of available resources<br>Lack of focus on organizational evaluation systems | Defined performance standards<br>High utilization of administrative principles<br>Intensely rational utilization of available resources<br>Commitment to results<br>Organizational performance measured by variables (qualitative analytical instruments)<br>Return on investment<br>Cost/benefit |
| DECISION MAKING PROCESS | Political/scientific rationales<br>Decisions based upon political/social/scientific interests<br>Participation of diverse interest groups<br>Autonomous decision making units                  | Economic rationale<br>Decisions based on economic and quantitative factors<br>Integrated decision making systems  |
| ENVIRONMENT             | Highly competitive (currently)<br>Less vulnerable to environmental factors<br>Creative and transformative activity results   | Highly competitive<br>Highly vulnerable to environmental factors<br>Sometimes innovative  |

Source: adapted from Meyer Jr. (1982, p. 61)

As Meyer Jr. (1982) concludes, the main factors differentiating the university from a private company are: the political nature that prevails in decisions taken, the demands of a decentralized and fragmented structure, the difficulties in measuring the products resulting from organizational actions, the lack of performance standards and commitments to results. This is the organization as managed by university administrators.

### 3. Managing universities

In order to explain university management, we first need to clarify its structure. Kast and Rosenzweig (1985) define four major areas of management in the university

organizational model:

- Academic management. This is the exercise of academic functions (teaching and research);
- Educational service management. This involves the acceptance and maintenance of students, as well as the registration of their respective academic records;
- Business management. This includes activities ranging from finance, accountancy, procurement and support service management, to the operation and maintenance of university installations etc.; and
- Public relations. These incorporate institutional relationships with the media, former students, companies, government entities and other stakeholders.

Taking this organizational format into consideration, Hardy and Fachin (1990), in a study on university management, described the management models for this type of organization as based upon the managerial models for complex organizations:

- The first is the Academic Bureaucracy deriving from the bureaucratic model of Max Weber and adapted by Henry Mintzberg for professional organizations. One example of this model in universities is the management of peripheral services (cafeterias, libraries, dormitories, among others) and administrative management (procurement, registration, financial decisions, accountancy etc.).
- Another model is the Collegiate, which is the most commonly adopted structure by academic organizations worldwide in which the participation of the community is effective. As examples, we may refer to the Senates and the managerial boards present in the majority of traditional universities, particularly the public ones, with the participants being the academic staff, students, managers and members of the community.
- In the third model, the Political, the university is a political system in which interest groups wield their power to their own benefit. One good example is the process of drafting a university budget which frequently results in the greatest levels of financing going to those with the greatest power and not the most relevant in terms of size or even reputation.
- The fourth model, Organized Anarchy, is where there is very little coordination and control, in which each individual engages in autonomous decision making processes, with examples being the decisions made by departments (over partnerships with companies, the reallocation of teaching staff and research decisions, among others) in which the senior university management does not exert any type of control.
- There is also the Cybernetic model, proposed by Birnbaum (1988), which effectively represents a merger of the four models cited above.

Hardy and Fachin (1990) argue that it is rare to find universities with only a single model. What is encountered in higher education institutions is a mixture of all models (as is the case with the Cybernetic), yet with one tending to prevail over the others. For example, in the case of private universities, academic bureaucracy tends to rise to the surface. Meanwhile, in public universities, particularly the most

traditional, collegiate or political models tend to prevail. Meanwhile, in more recently founded universities and in those universities focused almost exclusively on research, organized anarchy is often predominant. There is also a fifth model, not included by the aforementioned author, namely the Market model. This model is commonly found among private higher education institutions that have been established in recent years, particularly the smaller in scale and with return on investment objectives (Kirp, 2003; Morris, 2010).

In accordance with the positions of Hardy and Fachin (1990), managing universities means striving for ambiguous objectives, involving various electoral groups, relatively ill-defined technologies, highly specialized core professionals (or professors), and working in an exposed and vulnerable environment. Correspondingly, university management has to incorporate such factors and to develop an approach with an appropriately matching style. Frequently, questions of shared governance, the role of leadership and the changeover from bureaucratic management to a more professional approach has been of major concern.

De Jager (1992) argues that the dual system of higher education governance (administrators and professional specialists) limits the utility of traditional management techniques irrespective of their diverse configurations across the sector, a position also shared by Blau (1994). Meanwhile, Ouchi (1980) classifies university configurations into three categories: clans, bureaucracies and markets. Clans seek to control organizational behavior, through the sharing of values, traditions and cultures, such as those to be found among staff within the departments, schools or universities. The controlling bureaucracies ensure management through hierarchical authority and rules, in conjunction with the state or accreditation agencies. Market configurations invoke powers, such as competition and prices, so as to mold the organizational behavior of the university.

Furthermore, there are a range of problems impacting on higher education. In the majority of cases, these are multi-dimensional, wide reaching, complex and demand planning, implementation and evaluation. Although many of these problems are not new to the higher education environment, social, technological, economic and political factors are driving change in the way they are perceived. Currently, some of the most important questions under the consideration of educational leaders are: demographic changes among the student population, the construction of alliances between teaching staff and populations both in the community and global organizations, shrinkage of financial resources and the corresponding need to raise funds and engage in developmental activities, and the ethics underlying all the services and programs provided (Huisman, 1998; Bush, 2000; Birnbaum and Shushok Jr., 2001; Pusser, 2002; Morley, 2003; Tomlinson, 2004; Shapiro, 2005; Kogan *et al.*, 2006).

These aspects are depicted in Clark's (1983) triangle that identifies three powers as wielding great influence over university management: the government, the academic oligarchy and the market. Particularly in the prevailing reality, the market has taken on great importance and influence over the other two powers. It should be noted that universities, even the most traditional, have been adopting business

sector influenced practices (Bok, 2003; Newman, Couturier and Scurry, 2004; Slaughter and Rhoades, 2004; Hallinger and Snidvongs, 2008). This is a means of demonstrating how higher education institutions are increasingly focused upon their stakeholders (Chaffee, 1998; Kirp, 2003).

Within this more contemporary context, a large percentage of the literature on university management and types of higher education organization has concentrated on general questions relative to the sector and society in the 21<sup>st</sup> century. Questions relating to governance (Pusser and Turner, 2004; Lechuga, 2006), to accreditation (Kinser, 2005), to politics (Pusser and Doane, 2001; Kirp, 2003; Newman, Couturier and Scurry, 2004), to their economic impact and the influence these institutions have over higher education (Breneman, Pusser and Turner, 2001, 2006; Ruch, 2001; Berg, 2004; Washburn, 2005; Pusser, 2006; Lechuga, 2008) are among the themes gaining greatest attention.

Universities, along with the many other institutions rendering higher education services, are experiencing an environment of change and transformation, challenging their traditional structures and strategies and highlighting their problems, such as the slowness of decision making processes, internal bureaucracy, corporatism, teaching competences and standards, and forms of management that have impact on the poor performance of this organizational type (Bratianu, Reinhardt and Almasan, 2010). According to Julius, Baldrige and Pfeffer (1999), this may be explained by the multi-dimensional nature of higher education institutions, characterized by three factors specific to this organizational type: interdependence (there is no single leadership, but rather coalitions and relationships between various parties), diversity (bringing together different people from different backgrounds, fields of knowledge and working orientations) and different paradigms of authority (managerial authority, academic authority and professional authority).

However, proposing solutions to university organizational challenges has also been high on the research agenda, especially in terms of its institutional adaptation (Cameron and Tschirhart, 1992; Zusman, 1994; Hearn, 1996; Bush, 2000; Kogan *et al.*, 2006), restructuring (Gumport, 1993; Rhoades, 1995; Slaughter, 1995; Shumar, 1997; Pusser, 2002; Tomlinson, 2004), improving performance (Cameron, 1984; Dill and Sporn, 1995; Peterson, 1995; Gumport and Pusser, 1997; Bolman and Deal, 2003), responding to government reforms, institutional autonomy and scopes of responsibility (Van Vught, 1989; Berdahl and Millett, 1991; Altbach, 1998; Bok, 2003), the diversification of funding, strengthening the administrative core and business management (Clark, 1996a; Clark, 1996b; Slaughter and Leslie, 1997; Huisman, 1998; Caplow and McGee, 2001; Jenks and Riesman, 2002; Shapiro, 2005; Kerr, 2006), transformative leadership and quality of management (Cameron and Tschirhart, 1992; Dill, 1993; Shumar, 1997; Bush, 2000; Tomlinson, 2004; Kogan *et al.*, 2006). All these research efforts seek to contribute towards endowing the university with a mission and objectives structuring its routines and ensuring its goals that become more visible to university members (Etzkowitz and Klofsten, 2005; Moray and Clarysse, 2005; Van Gramberg, 2006).

#### **4. The need for university management change**

In the current market reality, the university can be considered as a “company” providing educational services to its clients, students and employers. Similar to other companies and institutions, it should also be natural for higher education institutions to change their ongoing processes and activities, and implement a new institutional model reflecting the provision of educational services within a new social environment (Drozdová, 2008). Hence, at the very core of universities is a need to be companies of knowledge, developing teaching, research and outreach activities without ever losing sight of the business vision contained within its administrative structure (Hardy, 1996; Bryde and Leighton, 2009).

This is due to the fact that higher education institutions are forced to explicitly prove to society that they make effective and efficient usage of their resources and that their activities bear relevance to the employment market, aspects only really achievable through modern management acting in accordance with the prevailing environment (Hintea, Ringsmuth and Mora, 2006). Therefore, management changes are necessary according to Keller (1983), as organizations rendering higher education services are among the worst managed organizations in society, even in countries where higher education is perceived at a high level, such as in the United States. Michael (2005) argues that this still remains true today. Furthermore, this author highlights the dual nature of higher education and the need to apply business or market based strategies adapted to the higher education sector. With selective strategic applications, some efforts to reform higher education management encounter little success with others proving highly counterproductive.

Thus, the management challenge facing contemporary universities refers to the multiple roles assumed by universities and the extraordinary increase in the number of subject fields, heightening in turn the complexity of the university environment (Hintea and Loessner, 2005). Simultaneously, financial restrictions, rapid technological change and rising coordination difficulties raise the level of uncertainty and dynamism of the university context. The implications of this scenario for the organization and management of universities may be analyzed within the scope of the evolution from the classical university to the current university environment (Davies, 1987; Hounshell, 1996; Bok, 2003).

This analysis suggests that the organization and management of universities need to adapt to more complex and dynamic environments (Reid, 2010). There is a need to understand that the external environment is by far the most powerful force driving internal university change (Baldrige and Deal, 1983). This environment tends to result in a more organic than bureaucratic university equipped with more flexible structures, less formal rules and greater mutual adjustment. University organizations with this format prove more innovative and adapt more easily to changes in their surrounding environment. This contrasts with the departmental and bureaucratic structure of traditional universities, which hinders the development of new educational programs, adapted to the needs of the employment market, and new interdisciplinary research



programs requiring the cooperation and interaction of diverse department resources (Birnbaum and Shushok Jr., 2001). This seems to be one of the central problems of the modern university, and solutions probably involve restructuring the very core foundations of university management (Rosenberg and Nelson, 1996).

Thus, according to Gornitzka (1999), it would be counterproductive for universities not to proceed towards a market based management approach. From this perspective, the role of the state is the minimum and it assumes practically that all the actions of state and public organisms will be less efficient, effective and unfair than activities undertaken out of private and market related initiatives. In such cases, the role of higher education institutions is the delivery of services, such as teaching, with efficiency and flexibility being the criteria for higher education institutional evaluation (Harvey, 2000; Nicolescu and Dima, 2010). The state acts only as an observer leaving universities to act freely within a self-regulated market. Correspondingly, the predominant organizational form is similar to companies operating in competitive markets and the extent of change of higher education depends on the levels of stability or change in the environment (Miller and Edwards, 1995).

Thus, and in keeping with Engwall's (2007) position, modern universities should evolve and begin to act in the same ways as business organizations, expecting a reduction in governmental control and stimulating university participation in the marketplace. This ensures organizations' strive to higher standards of professional and business management, focusing on areas such as marketing, strategy and finance. This is an orientation towards a "higher education" business sector, which seeks rationality in organizations characterized by their complex nature (Bok, 2003; Gould, 2003). Simultaneously, companies turn their gazes towards universities. Technological development and innovation now feature as important differentials in the market, and such may be sourced from universities (Prusak, 1997; Crainer and Dearlove, 1999; Woollard, Zhang and Jones, 2007).

Nevertheless, there are limits. It is important to remember that higher education institutions are in charged with a public mission. This means that they produce services driving benefits for society in general terms. Furthermore, government imposes certain norms in relation to the quality of the services rendered and access to services. However, to a large extent, the state is allowing broad room for maneuver to universities in determining the content of teaching and research (Considine, 2002). In this regulatory climate, universities move away from the state and seek to establish their legitimacy in the form and ways that their services are accepted and valued by various interested parties from across society. Universities gain and maintain social legitimacy through the ways and means they guarantee quality. And this is the current challenge, namely responsible governance (Jongbloed, Enders and Salerno, 2008).

## **5. New ways of managing universities**

The pressures encountered by universities, driving them to become more competitive, efficient, effective and better adapted to the needs of their stakeholders have all

led to a growing and unprecedented level of interest in organization performance evaluation (Morrison, 2010). As a result, performance management systems have been implemented in some universities and many of these institutions have already begun to rethink their organizational, administrative and managerial approaches and frequently moving on from traditional participative management models (a mixture of bureaucratic and collegiate models) to embrace more business style models (Vilalta, 2001; Dickeson, 2003; Michael, 2004). As the long term expected results, they seek to build a well-educated society and contribute towards economic development (Boland and Fowler, 2000). Hence, the university of this new century should be more concerned with results than with processes (Reisz, 2007).

This trend has been highlighted by many authors with the deployment of concepts of “managerialism” (Miller, 1995; Reed, 2002; Amaral, Magalhães and Santiago, 2003), and also the more recent “new managerialism” and “new public management” (or NPM) (Deem, 1998, 2001; Meek, 2002; Reed, 2002). According to Santiago and Carvalho (2003), “managerialism” is normally identified as a set of management processes and instruments, technically beyond discussion and socially and politically neutral. The main objectives involved are attaining efficiency and evaluating the performances of higher education systems (Rosa and Amaral, 2007).

The transition of higher education management into managerialism is, according to Currie and Newson (1998), an integral part of the impact of globalization on higher education, in which market ideologies merge into a set of management practices borrowed from the business sector, such as publishing accounts, privatization, budgets, downsizing and outsourcing, for example.

Teichler (2003) describes the managerial university as featuring: a reduction in government procedural controls, greater competences over the allocation of higher education institutional resources, increased management powers (thus, greater powers to executive positions at higher education institutions), growth in the numbers of higher education professionals in conjunction with a reduced role for the academic profession and the greater emphasis placed upon mechanisms for evaluation, reports and others.

The emergence of the term “managerialism” had two important consequences for higher education. Firstly, it has fostered a vision of public managers as business leaders of a new government, leaner and ever more privatized and copying not only the practices, but also the values of private business (Denhardt and Denhardt, 2000), which led to the utilization of private sector management techniques. Secondly, the confidence lost in public services such as universities has also tarnished the professional reputation of academia.

It is important to distinguish between “managerialism” as an ideology for strategic change in public services and the need to endow higher education institutions with greater administrative flexibility and efficiency (Rosa, Saraiva and Diz, 2005). In the latter case, the management processes and the new tools serve as mere instruments in the service of institutions and their managements, without ever becoming determinant in defining the goals, targets and strategies (Meek 2003; Amaral, Magalhães and Santiago, 2003).

Or as Trow (1994) had identified earlier, there should be a distinction made between “hard” and “soft” managerialism. The latter perceives the institution as autonomous, governed by its own norms and traditions, with a rationalized and efficient management system while still engaged in functions defined by the academic community.

According to Santiago *et al.* (2006), in terms of structure, the new managerial approach of universities results from greater differentiation between power and authority within these institutions. However, there are also horizontal differences in organizational structures related to the creation of new units dedicated to interacting with markets and supporting the commercial exploitation of teaching and research activities, including centers for interdisciplinary research, learning centers, service support units and distance and continuous learning units. The influence of new university units often proves significantly strong and able to leverage cultural change and modify traditional academic structures, through:

- introduction of an entrepreneurial spirit into academic activities, whether in relation to external operations, as well as internally (for example, creating an internal market, structuring the budget according to different cost centers specifically identified with units, study programs or projects);
- concentration of an important part of institutional power in the hands of executive management (specialized academics or professional academics), and the creation of new organization networks transversal to the traditional and hierarchical structures; and
- induction of a managerial perspective as regards the competition, thereby replacing that based upon academic prestige as well as setting objectives with defined deadlines and business style targets for success.

## **6. Resistance to change**

However, change is no easy process. The greatest challenge is understanding and being prepared for the idiosyncratic nature of higher education institutions. Hence, the blind adoption of business sector practices is unlikely to serve much purpose (Birnbaum, 2000; Sporn, 2003). As a complex organization, the university will present strong resistance to change. This is primarily set up by academics and educators. As a reaction to the managerialist perspective of the liberalization of university management, the following works stand out:

- Suzuki (1989) – “*The Prostitution of Academia*”;
- Readings (1996) – “*The University in Ruins*”;
- Ritzer (1996) – “*McUniversity*”;
- Slaughter and Leslie (1997) – “*Academic Capitalism*”;
- Kenway and Langmead (1998) – “*The Corporatisation and Marketization*”;
- Manne (1999) – “*The Death of the University*”;
- Aronowitz (2000) – “*The Knowledge Factory*”;
- Marginson and Considine (2000) – “*The Enterprise University*”; and
- Fuller (2001) – “*The Chief Knowledge Officers*”.

Indeed, despite managerialism serving as a new university management model gaining strength in society, in particular among governing circles (Cullen, 1992; Neave, 2000), we may point to the number of both managers and lecturers who remain entrenched in traditional and elitist models of higher education (Meek, 2006). Historically, faculties and universities have proven extremely slow at adapting to social change (Henkel, 1997).

Hence, as Meister-Scheytt and Scheytt (2005) comment, managing change in universities is an unpleasant task: it tends to be undertaken in periods of financial cuts and impacts on organizational targets. The motivations behind the actions taken by those involved are, in the main, fairly obscure to other actors. In addition, the hierarchies are traditionally ambiguous and uncertain with only weak governance structures. Organizational members remain idiosyncratic and very often obstinately, but they are specialists on the field under discussion. The organizational culture is diverse as various subjects have scientific guidelines and orientations that are frequently contradictory. Defensive routines have spread throughout the organization thus rendering it even more difficult to transform (Argyris, 1990).

Mehralizadeh (2005) explains how this resistance by internal university actors causes series of administrative problems, in particular, poorly drafted plans that are never implemented, an inability to change the traditional university culture, a lack of senior management commitment towards results, dependence on increasingly scarce government sources of financing, an organizational structure incompatible with reality, the isolation of individuals and departments, the loss of teaching and research quality, a lack of university proximity towards society and inadequate attention paid to stakeholders with bonds to the institution.

Tierney (2001) and Machado, Farhangmeher and Taylor (2004) also point out some of the problems related to changing the way higher education institutions are managed, including: the lack of consensus on what the actual problems are, who is responsible for them and how to achieve this, the lack of compliance with deadlines for problem resolution in extensive and complicated processes, the lack of good evaluation processes due to the need to meet deadlines, ineffective internal communication systems, bureaucratic rigidity, and, the lack of belief that the change processes are going to work for the better. Indeed, a business logic for the management of higher education frequently does fail as there is no internal consensus around professional management being the best means of ensuring organizational continuity.

Complementarily, as Rosa and Amaral (2007) summarize, there are genuine obstacles to the modernization of university management structures:

- As takes place in other services run by professional bureaucracies, the higher education institutions have various purposes and objectives that are normally not sufficiently explicit and their priority relationships may be difficult to identify.
- More professional management implies the definition of an organization mission as well as identifying the needs and expectations of its stakeholders. However,

according to Birnbaum (2000), the majority of higher education institutions are incapable of answering such questions. In practice, there are various groups both within and beyond higher education institutions that may be considered their stakeholders and yet in most circumstances have very different needs and expectations to be met.

- Who are the participants in higher education? On the one hand, there is the teaching staff, participating in the teaching/learning process, research and services to society. On the other hand, there are the students who should be responsible for their own learning, motivated to learn and maximizing the development of their capacities. Consideration also needs to be paid to the non-academic staff who also play key roles in higher education institutions,
- Universities are currently organizations where there is an emphasis on individualism, as well as a high degree of internal competition, where there are few incentives for team working clearly expressed in organizational objectives.
- It is useful to know that the measurement of results is fundamental to the implementation of any organizational management system as it is based upon the difference between expected and real performance that the continuous improvement of process quality may be attained. However, how do you measure the results of higher education institutions? In the majority of cases, performance indicators are utilized such as: student and lecturer results, financial resources (public or private funding attracted), the results of final exams, the dropout and academic success rates. However, as stated by Harvey and Green (1993), these are almost exclusively institutional measurements of efficiency and adopting only these ratings may be dangerous as there are also important qualitative aspects to performance that should not be overlooked.
- The lack of efficient communication channels, the continuation of weak or outdated IT systems and the bureaucracy impacting on decision making are also obstacles to the implementation of more professional academic management. Kells (1995) argues that it is normal for universities not to have all the relevant and most recent information on themselves, and the way they operate or systems for the collection, processing and utilization of data.
- Leadership is a crucial factor when adopting a professional management approach. The successful implementation of a new management format requires strong leadership, open to dialogue, commitment towards the principles and ideas that they seek to implement and able to convince other organizational members regarding the worth of a project. These conditions prove difficult to be brought together within a university context. In such an organization, it is generally difficult to assume a true leadership role as the authority is dispersed across the entire hierarchy, in particular in collegiate bodies, which makes change and the adoption of new approaches still more difficult.

However, given the environmental imperatives of this century, there are also rising tensions between the needs of universities, understood as the need for professional (or

entrepreneurial) management, and the traditionally resistant form of its organizational structure. Birnbaum (2000) observed three particular tensions:

1. In an institution that creates and disseminates knowledge, immobility and the absence of change cannot be accepted.
2. Considering the growing need of universities to provide efficient internal operations, the ineffectiveness of excessively bureaucratic administrative departments cannot be accepted.
3. There is a rising disparity between institutional agility, focus, innovation and entrepreneurialism and the traditional culture of the academic department.

Despite the difficulties, the management of universities needs to carry out the changes necessary and measure their performance to the benefit of society as a whole. According to Lewis, Hendel and Kallsen (2007), the university should be evaluated in terms of: (a) academic excellence, (b) the nature and progress of its students, (c) average levels of success in the services supplied, (d) the development of employee human resources, (e) the maintenance and improvement of its physical infrastructures, and (f) implementation of the measures required to ensure efficiency and excellence. Therefore, as Clark states (1998), the time has already arrived for universities to perceive that the appropriate management will only take place with duly prepared professionals. This changeover tends to considerably benefit universities, whether in terms of legitimacy, relevance, efficiency or effectiveness, and also it considers the needs of the various different actors involved in this type of organization. According to Etzkowitz and Leydersdorff (1996), the need to adopt management techniques is overwhelming as there is an equal need to measure the impacts of university on society and this is only obtained with precise, well planned and implemented objectives.

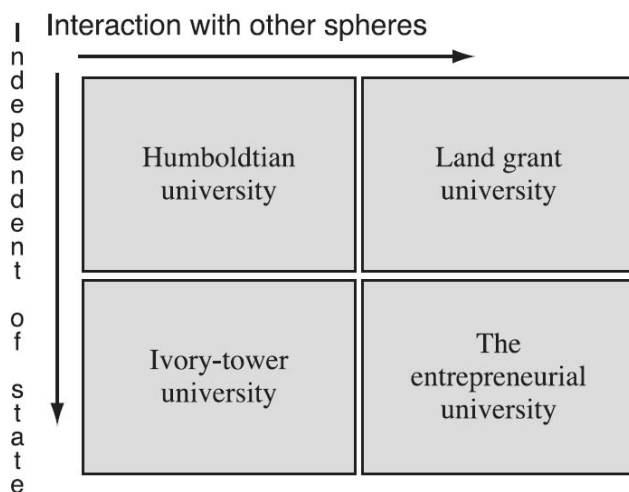
### **7. New types of universities: the entrepreneurial university**

Even while taking into account the fragmentation of subject fields and the multiplicity of targets and objectives, a flexible organizational structure enables universities to adapt to meet the emerging needs of society. The traditional slow rigidity of collegial or bureaucratic management of universities hinders the expansion of the university's capacity to meet demands in society (Neave and Van Vught, 1991; Sporn, 1996; Mora, 2001; Sandor and Tripon, 2006).

The literature does set out some proposals for new university models. Among those seeking to overcome the obstacles to instilling a more competitive environment, there is the institutional adaptation of universities, by Sporn (1999), the business university, by Shattock (2000), and the entrepreneurial university, by Clark (1998). The Sporn (1999) model refers to five factors for raising the standards of European universities, specifically: an externally focused mission, a differentiated structure, collegiate management, institutional autonomy and diversified sources of financing. In turn, Shattock (2000) emphasizes the characteristics of a business university as being competitiveness, opportunism, the generation of revenues, the reduction of costs, relevance, excellence and reputation. However, the type that has taken the

highest profile in the literature is Clark's (1998) entrepreneurial university. According to this author, entrepreneurial universities are made up of five factors that together form a core minimum structure: a strengthened core management, the search for development, diversified sources of financing, constant academic stimulation and an integrated business culture.

In this new format, the university tends to be increasingly independent of the government and at the same time more highly interactive with other social spheres. According to Etzkowitz (2003), the entrepreneurial university stands out most from among the various types of universities observed in society. This relationship is displayed in Figure 1.



**Figure 1:** Types of university according to Etzkowitz (2003)

Source: adapted from Etzkowitz (2003, p. 112)

While traditional universities (Humboldtian) are strongly regulated by the state and do not engaged in major relationships with other spheres of society just as “Land Grant” or research universities are also subject to significant state control even while interacting more with marketplace based organizations, in particular public companies and governmental entities, along with private sector companies, in efforts to obtain research project financing and transfer technologies to society. Meanwhile “Ivory Tower” universities are fairly independent of the state while remaining distant from society in general. Finally, entrepreneurial universities seek to be as free of state control as possible and seeking to interact closely with the market with the objective of acquiring resources as well as meeting the needs of society in terms of knowledge, both in terms of creation and dissemination thereby contributing to social development whether on the local, regional or national scale. This represents the active participation of university in society (Clark, 1998; Etzkowitz, 2003).

The entrepreneurial university has the capacity to generate a structured strategic meaning (Clark, 1998), whether in the formulation of academic goals or whether

translating the knowledge produced within university into knowledge of utilization to the economy and society (Etzkowitz, 2003) as a whole. In this way, it is an alternative response to the need to restructure the university to adapt to the competitive environments of the 21<sup>st</sup> century, including the creation of new organizational structures focused upon strengthening networks, carrying out franchising, commercializing the results of research and increasing the range of training options.

Within this perspective, the university makes an effort to pay close attention to society, learning and understanding its varied and always new needs, expectations and perceptions on higher education (Dill and Sporn, 1996; Dopson and McNay, 1996). After all, it is important to pay attention to those that the university was founded to serve (Duderstadt, 2003). Within this scope, Bok (2003) defends the entrepreneurial university as an “inverted organization”, framing the structural model in networks within which the main focus is upon stakeholders connected to universities, representing nodes in which the university service is adapted uniquely and delivered differently. This is what Peters (1996) defines as “external-partnerships”.

### **8. Final considerations: the university in the 21<sup>st</sup> century**

In order to prepare a university for the realities of this unfolding century, we need to reflect on the principles of academic liberty and institutional autonomy. These do not change and do not always influence the functions and activities of universities, their organizational and management structures, and the financing and human resource regimes in effect. In this respect, cultural change is the first step towards establishing an entrepreneurial culture in higher education institutions, while nevertheless maintaining the roots that brought them into existence and perpetuated university entities over the course of many centuries (Middlehurst, 1999).

According to Clark (1998) and Sporn (1999), 21<sup>st</sup> century university management should take on the following characteristics:

1. The capacity to adapt to demands from the surrounding environment, which may result either from a crisis or the appearance of an opportunity.
2. In order to adapt, universities are to develop and set out clear mission declarations and objectives.
3. Adaptability is strengthened by a business focused culture and an internal university structure that is differentiated by sub-units, rather than some monolithic single entity, and by professional university management.
4. Shared models of governance are necessary for implementing adaptive strategies.
5. a committed leadership is necessary as this represents an essential factor for successful adaptation processes.

Correspondingly, university management is to promote the commercialization of knowledge generated within institutions, the development of market professionals, cooperating and interrelating with the various stakeholders involved in the university and the development of marketplace networks and relationships (Clark, 2004). This is the university in fulfillment of its third mission (Etzkowitz, 1998; Van Vught, 1999),



which is the generation of knowledge, both basic and applied, and hence placed on the outer limits of existing knowledge.

According to Bok (2003), the success of universities in the 21<sup>st</sup> century resides precisely in the capacity to overcome the challenge of rendering compatible its cognitive autonomy, its responsibilities towards society and cultural values, with economic and political interests, thereby avoiding becoming simple “traders in knowledge”, something able to shake the structures and reputations of the more longstanding and resistant organizations in society. To this end, the author proposes decentralized management, based upon strategic planning, sustained by educational quality and excellence, supported by institutional organization appropriate to the current times, in harmony with the new technologies and with the development of a culture of constant evaluation, with the measuring of results and comparison with the objectives set out. From this perspective, this is all summarized in the dual university focus on meeting the demands of its stakeholders and on becoming a good model for university management in the early years of this century.

However, considering the historical scale to universities, they may be understood as fundamental organizations to any nation even while needing to modernize their approaches to institutional management. While the perspective before was highly closed and internally focused upon itself, the “ivory tower” metaphor may be stated today that the university should “open up its doors” and get involved with its surrounding environment in efforts to contribute towards its society and economy. There is the conviction that higher education may change the destiny of a nation but, to achieve this, it needs due organization and ensure management focused on the satisfaction of the needs of individuals and companies. University modernization, through taking on a more entrepreneurial basis, may involve a significant social change, thus contributing towards the sustainable development of the regions covered by the university.

Finally, in continuity of the study presented here, we hereby propose some future lines of research for evaluating the current state of each university as regards:

- The management models and university types set out here. What is the actual university position?
- The management team and its respective leadership. How can this be oriented towards change?
- The existence of the appropriate training of managers at these new universities.
- The level of preparation for modernization.
- How managers may overcome resistance to change?
- What university type best deals with stakeholder needs?
- What policies may be important to changing the direction and practices of the university?
- What is the role of external actors to university change?

This is just the beginning of some of the questions that may be responded to by university management focused research. The academic contributions have

demonstrated and continue to demonstrate their relevance to raising the performance levels of university organizations.

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