

Strategic Planning in Higher Education

Abstract

Higher education institutions around the world are taking on more responsibility for their own future planning. As a result, they need to further strengthen their capacity for strategic performance. The narrow field of strategic planning is comprised of three steps: first the changing demands of the environment (economy, society, policy, research, etc.) are analyzed against the institution's internal potential. Based on the analysis, various development scenarios are assessed; some are subsequently selected for formulation as concise strategic objectives. Finally, specific concrete actions for change are undertaken in order to achieve the strategic goals. This is the rational, linear approach to planning; however, it has been proven that successful strategic performance is also intuitive and emerges during the process of implementation. Altogether, there are four clearly distinctive types of strategic development: the classical approach, New Public Management, the evolutionary approach and the systematic approach.

Leaders of higher education institutions have to ensure and protect the necessary flexibility to accommodate all four approaches. They are responsible for shaping the internal system of strategic planning in such a way that the approaches are both compatible and complementary.

Strategic planning involves such commonly used tools as SWOT-analyses, portfolio-analyses, goal- and performance cards, internal contracts, etc. Since these tools normally originate in the business sector, they each have to be adjusted to the specific context and needs of the higher education institution as a loosely coupled "expert organization".

For the last third of the 20th Century, higher education institutions around the world have been struggling under two different types of pressure: the first is financial, as the provision of public funds has been decreasing. The second refers to the political, economic and social demands on higher education, which have been increasing. Meanwhile, state governments are withdrawing from the direct regulation of and responsibility for the higher education sector. Under the paradigms of "New Public Management" and "Public Governance", higher education institutions have been endowed with greater autonomy for a new beginning. It is now up to the institutions to bridge the gap between increasing internal and external demands for societal services and the limited available resources by improving the efficiency and effectiveness of their work. The task requires professional management for all types of higher education institutions, from the Humboldtian universities with their formerly state-guaranteed budgets, personnel and organization which are forced to create at first their own management system to the Anglo-Saxon and US-American universities that have to professionalize their management system. In terms of "The Triangle of Coordination" used by Burton Clark (1983) to classify the national higher education systems according to the major influences of the state, market or academic oligarchies, the global trend clearly indicates the increasing importance of the market and competition. Consequently, the model of the "entrepreneurial university" has emerged, which then necessitated the creation of methods and instruments appropriate for institutional leadership in the higher education sector. In this context, the issue of "strategic planning" takes on new importance for higher education institutions around the world.

The Basic Model for Strategic Planning

The basic model for strategic planning consists of several consecutive steps, beginning with a strategic analysis in which changes in an institution's environment and the resulting external demands are mapped out against the institution's internal potential. On the basis of the analysis, strategies with long-term goals are formulated and then the actions necessary for realizing the strategies are planned. These three steps, which are often accompanied by expertise from external advisors, fall within the narrow field of planning. The predetermined actions are then put into practice and lead to results on the basis of which the actions, strategies and analysis can be evaluated (Figure 1). Unexpected deviations come about either because of mistakes in the plans (inexact analysis, insufficient strategy derived from the analysis, actions for change undertaken without sufficient reference to the strategy,) or from mistakes in implementation. The main focus remains on the first three steps of the basic model: the rational, linear linkages between analysis, strategy for and planning of action for change. According to the original proponent of this approach, Igor Ansoff (1965), planning should be based on expertise; mistakes in planning must therefore be rectified through more, or better, expertise.

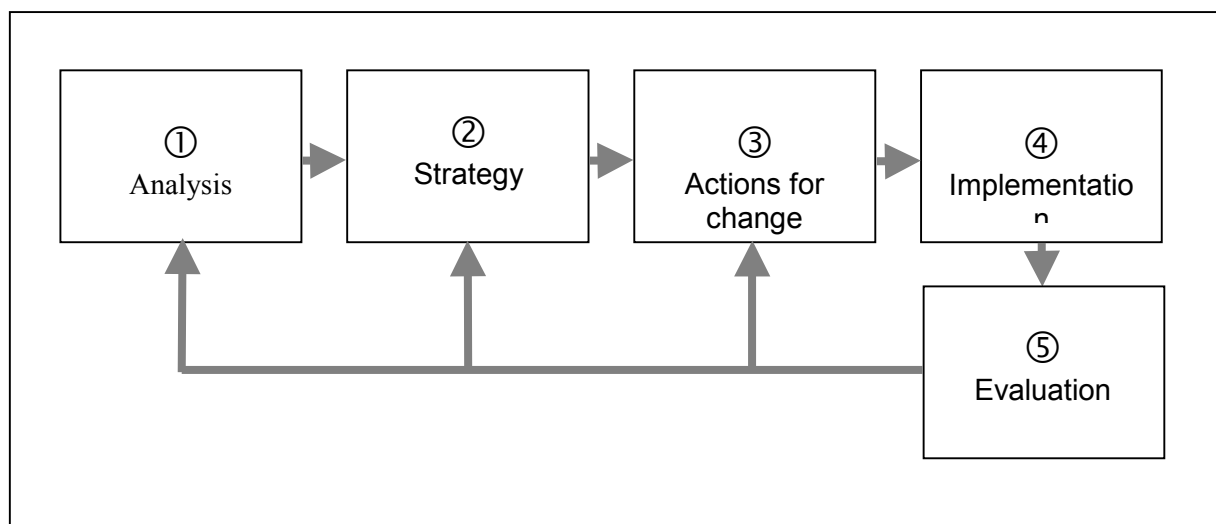


Figure 1: Planning cycle

Goals and Performance Areas

Most strategic plans in higher education are based on this primary model. They usually describe goals to be achieved across three distinct, hierarchical levels. The top level, for the normative management, contains statements referring to the long-term social gains to which higher education should contribute (vision, mission), and the associated underlying values by which to proceed. The middle level, the strategic management area, includes mid- to long-term goals and objectives, as well as the strategies to be followed in order to reach them. Finally, the operative management area is found at the third level, where the actual actions for change (projects) are taken in order to accomplish the plans within the five to ten year reference period.

A similar hierarchy, although with slightly different terminology, is characteristic of the planning logic behind the New Public Management approach (Figure 2). At the upper level is a strategic plan consisting of long-term goals for impact or outcomes. The higher education institution uses the plan to enumerate the kind of influence it aims to have on its social and economic environment; for example, contributing as a knowledge organization to the improvement of economic prosperity, political democracy and social cohesion. Outreach to the community means that ‘products’ resulting from teaching and research are conveyed beyond the institution to the surrounding environment. The strategic plan entails performance or output goals specifically for this purpose. In the area of teaching and learning, for example, the plan describes graduates in terms of quantity (e.g. the number in each study field) and quality (e.g. qualifications related to subject area, as well as methodological and social skills); international profile; gender balance). For the areas of research and knowledge transfer, the plan could refer to the number of patents, publications, citation frequency, etc. In end effect, the operative management level steers the process intended to generate the pre-identified desired outcomes or results.

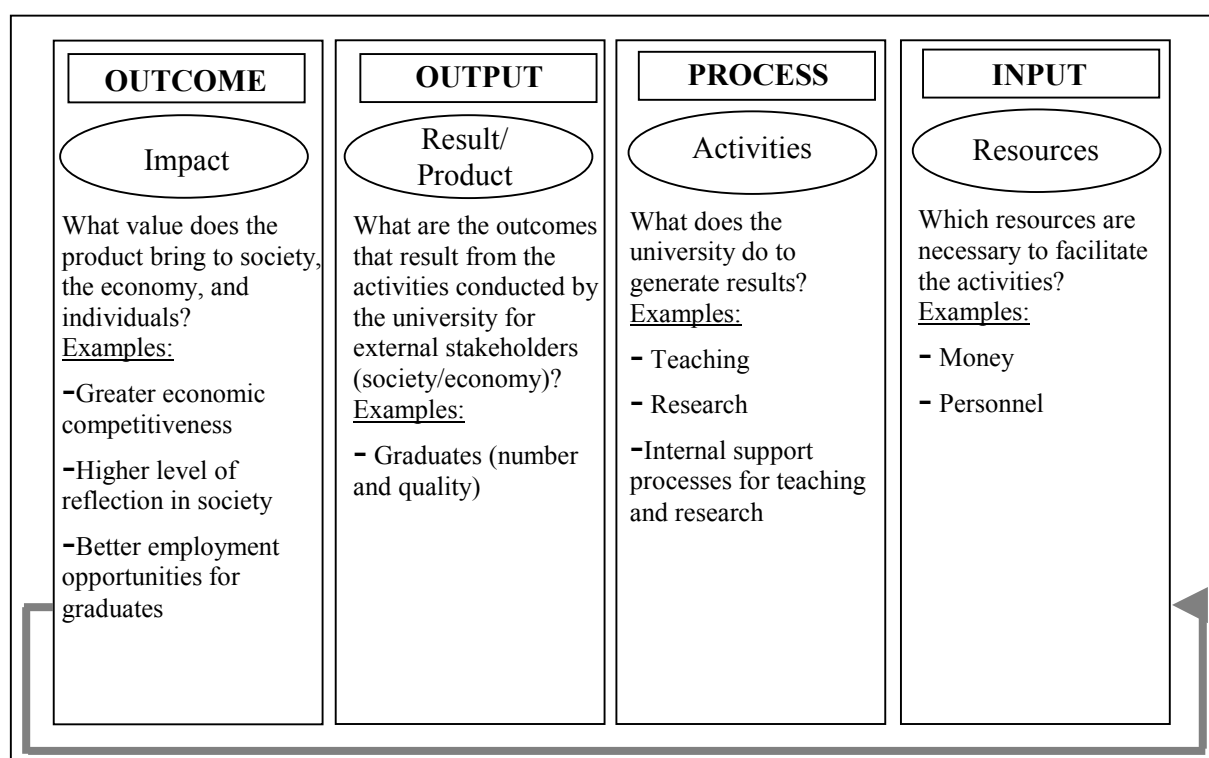


Figure 2: New Public Management

In addition to the hierarchy of levels of objectives, there is also further differentiation between various performance areas. The purpose of higher education institutions as knowledge organizations is to make accessible to the public the knowledge existing within society and newly created through research. Higher education institutions accomplish this through teaching and learning as the means to preserve and convey existing knowledge, through research as the means to generate new knowledge and to prepare the next generation of scientists for further knowledge building. Most UK, US, NZ, Australian etc universities would add to Research and Teaching/Learning 'Service' to or 'Engagement' with the community. Higher education institutions are not self-sufficient ivory towers; in fact, they exist precisely because of their impact on the external environment. These externally oriented

performance areas are therefore essential to every higher education institution. In economic terms, they are the main “business areas” where higher education institutions define their policies in order to remain competitive within the sector. It is important to distinguish between the externally oriented key processes and the services that the university provides in order to support these processes. In particular, such services include the make up of the internal financing system, as well as staff recruitment, information services, student services, technology transfer offices, and of course the strategic planning system. The purpose of the internal services is to provide for internal “clients/stakeholders”; however, they remain closely related to the university’s key processes and are certainly no less important than the externally oriented performance areas. In fact, the opposite can be argued: The performance capacity of an entrepreneurial university is more and more dependent on its internal management system, which is responsible – through appointment policies for example – for the quality of the externally oriented key processes.

In order to reconcile all the various different demands placed on higher education today, strategic plans are often complicated undertakings. Normally, they consist of a general vision or mission statement followed by descriptions of the current situation in the respective area, strategic objectives and the intended course of action for change. Many higher education institutions have published their strategic plans either in printed format or on the Internet, e.g. all Australian universities, Radboud University Nijmegen (Netherlands), University of Graz (Austria) or University of Wisconsin-Madison (USA).

1. University mission statement, normative objectives
2. Research
 - a. Situation analysis
 - b. Strategic goals
 - c. Projects and operational goals
3. Development of junior academics (a. – c.)
4. Teaching and learning (a. – c.)
5. Engagement with the community (a. – c.)
6. Budget strategy (a. – c.)
7. Infrastructure (a. – c.)
8. etc.

Figure 3: Outline of a Strategic Plan

Changing the Basic Model

The basic model for rational planning has come under heavy criticism for years, primarily because it places so much emphasis on planning while neglecting issues of implementation – the very issues that usually come to the fore during the execution phase of the plans. An analysis steered by experts and implemented by management, the critics claim, assumes a division between thought and action that is not consonant with real life. Planning does not happen in isolation, but should be based on actions and deliberate reflection. In fact, empirical studies in management research have shown that the planning model did not determine the strategic performance of many successful enterprises. Instead, it was shown that the most

successful enterprises remain extremely flexible and retain a high level of responsiveness with respect to the often-unpredictable external environment. What is more, they place great importance on experience and the implicit knowledge accumulated within the organization, and they rely on their ability to improvise.

There are numerous reasons for why more flexible organizations are the most successful: The outside world is so dynamic that only limited predictions can be made about what might happen – which renders long-term planning rather tenuous. The external environment is an elusive object for a strategic analysis because it is also determined by strategic players who analyze things from their own perspectives and change their behavior accordingly. Insights from systems theory and strategic theory indicate that the reciprocal observations from various analysts and their interaction makes it necessary to adopt a high level of flexibility, and that alternating strategies need adjustments depending on the situation. It is also often the case that the actual members of an organization have quicker and more direct access to relevant information on changes in strategies by their competitors through their own external contacts than experts can provide for with their analyses. In order for this information source to be used to the best advantage, the available (but usually implicit) knowledge within the organization has to be mobilized to flow directly into the formation of strategically determined behavior – not only during the implementation phase of a predetermined plan. All of which leads to the point that the internal environment of an institution is equally as important as the external environment. It is also equally complex and can be characterized through various sub-systems, perspectives, and usually its own brand of logic as well. Under such circumstances, patterns can emerge that would be recognized retroactively for their inherent logic and possibly serve as organizational plans for the future; however, they do not follow the rational-linear method of planning based on expert analysis followed by separate implementation (specifically Schreyögg 1999, 2002).

This theory of the breakdown in planning is particularly well developed in Henry Mintzberg's work. Mintzberg defines intentions that become implemented as deliberate strategies. Meanwhile, plans that were identified during the initial phases but remained unrealized must be left aside because of the focus on the first three steps in planning (see Figure 1). He further distinguishes between deliberate strategies and "emergent" strategies that develop as a result of the system. Realized strategies are based on the combined sum of all of these approaches (Figure 4).

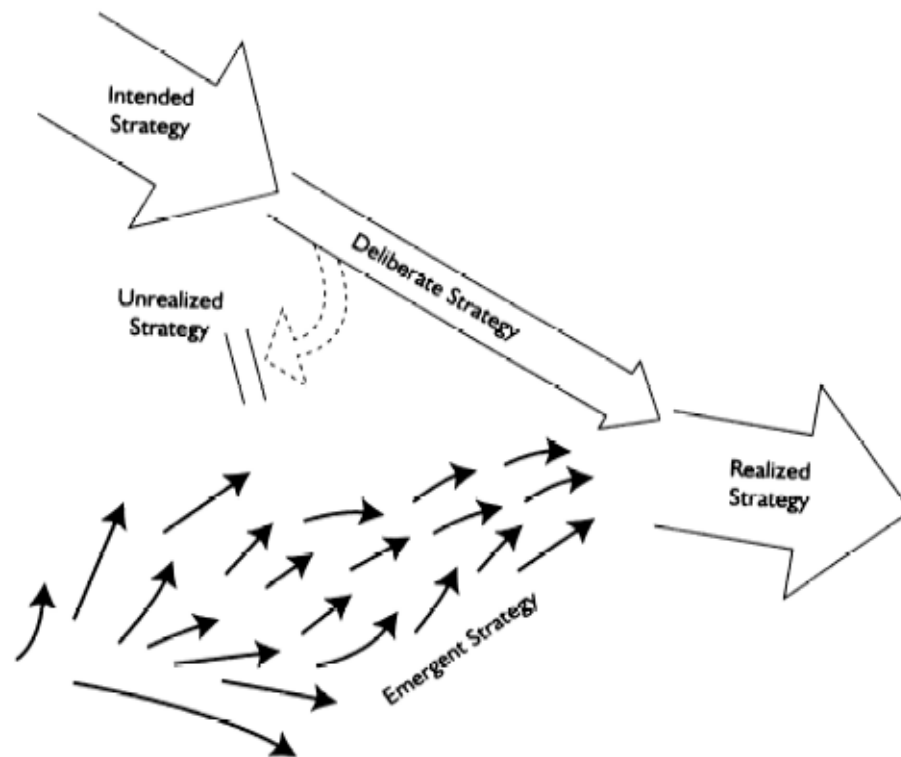


Figure 4: Strategy deliberate and emergent (Mintzberg)

In his book “Strategy Safari” (1999), Mintzberg used Honda’s conquest of the American motorcycle market as a good example of emergent strategies. The planned strategy called for the production of heavy machines, but successful penetration of the market only became possible when the players involved happened to notice that the greater demand was in fact for small machines. Mintzberg goes on to cite an impressive study covering 100 of the 500 fastest-growing American businesses. According to the study’s findings, 41% of the companies had absolutely no business plan at all. 26% worked from a sketch scribbled on a piece of paper, 5% just used a financing plan, while only 28% had a fully formulated business plan.

It is important to note that higher education institutions are a special kind of organization that is fundamentally different from economic enterprises. Similar to accounting and consulting companies, hospitals or schools, higher education institutions are knowledge organizations, otherwise known as “expert organizations” or “professional organizations”. Knowledge, their most important capital, does not “belong” to the organization but remains in the hands of the experts. The experts are the actual owners of the strategically most crucial resource – the very resource on which the university’s performance and reputation depend. Even the assessment of the quality of this knowledge can only be conducted by experts, most of whom are affiliated with other universities, i.e., the scientific community. In organization theory, universities are among the loosely coupled systems (Weick 1976), and their fundamental strengths come directly out of the unplanned, curiosity-driven development of their own systems. Hierarchical strategies for steering such organizations risk being less than effective or can even – in the worst-case scenario – destroy productive development potential.

There are very few empirical studies on the forms and effects of strategic planning in higher education. However, it appears safe to assume that the universities that are successfully positioned with regard to the competitive market have made good use of the findings in management research on emergent strategies and of the available information on the particularities of professional organizations. These models indicate that leadership should place great value on observation, communication, flexibility and reflection with regard to changes within and outside the university. Leadership has to be able to cope with ambivalence and contradiction without neglecting the necessity of a strategic orientation for the organization. Leadership duties do not entail prescribing or presetting a strategy as much as they refer to the steering of a process framing strategic change. This process is not necessarily a matter of imposing normative, strategic and operative goals upon different levels of hierarchy and thereby executing and controlling a strategic program that was devised in this manner. It is actually more about developing a rough strategic framework that promotes a common orientation for the entire institution. The framework encourages mutually beneficial behavior, but also allows possibilities for self-determined actions by organizational sub-systems (departments, institutes, etc.) and their individual members, who can use their respective specific expertise productively within the semi-autonomous units. In this context, the basic model that included situation analysis, targeting goals, actions for change and evaluation should in fact be preserved. However, the reciprocity between thinking and action will be reinforced through frequent and repeated loops of reflection on the process. This kind of development is visible in the literature as a new-found emphasis on strategic management rather than strategic planning.

Different Perspectives on Strategy

Thus, there is an abundance of different approaches to strategic planning. In some cases they intersect with each other or complement each other, in other cases they cancel each other out. In 'Strategy Safari' (1999), Mintzberg differentiates between prescriptive approaches (what he calls the design school, planning school, and positioning school), descriptive methods where certain aspects come to the fore (entrepreneurial school, cognitive school, learning school, cultural school, power school, environmental school), and the configuration school, which combines these approaches. Taking the perspective of organizational development, Morgan (1986) identifies different organizational pictures depicted by strategy developers, leading to different methods of procedure. They portray organizations as a machine, as an organism, as a brain, as culture, as a political system, as a psychological prison, or as an instrument of power. It is impossible to develop an abstract, standard formula for determining the direction a higher education institution should follow in its strategic development. The answer depends on the institution's identity, on the current context and environment in which it operates, and of course on its various potentials. Deciding which methodological approach to take is already the first step in developing a strategy that must be carried forward by the institution and in which it is also subject to the interplay between intentionally planned and emergent elements.

Although there is no single, "right" approach to strategic planning, certain basic types can be identified that can function (more or less) singly or in combination with each other, depending on the context, timing and current status of the organization. Whittington (2001) makes a simple but definite distinction that can easily be adapted to the higher education system by asking two questions: The first regards the objectives of the strategy ("What is strategy for?") and addresses whether the targeted outcomes are aligned one-dimensionally toward maximizing profits or if multiple, diverse objectives can be targeted. The second refers to the processes of developing strategy ("How is strategy done?"), with which Whittington

distinguishes between planned strategies and emergent developing strategies. Meanwhile, this taxonomy can be combined with one adopted by Nagel and Wimmer (2003) in which the formulation of strategic objectives is identified according to whether they are developed by the leadership or external experts, or if they emerge out of the system itself. This approach also distinguishes between processes developed implicitly or explicitly. The combined methodologies lead to a four-field matrix, which can be used as an analytical grid and applied to the higher education sector in order to produce the four distinct approaches to strategic development in higher education (Figure 5).

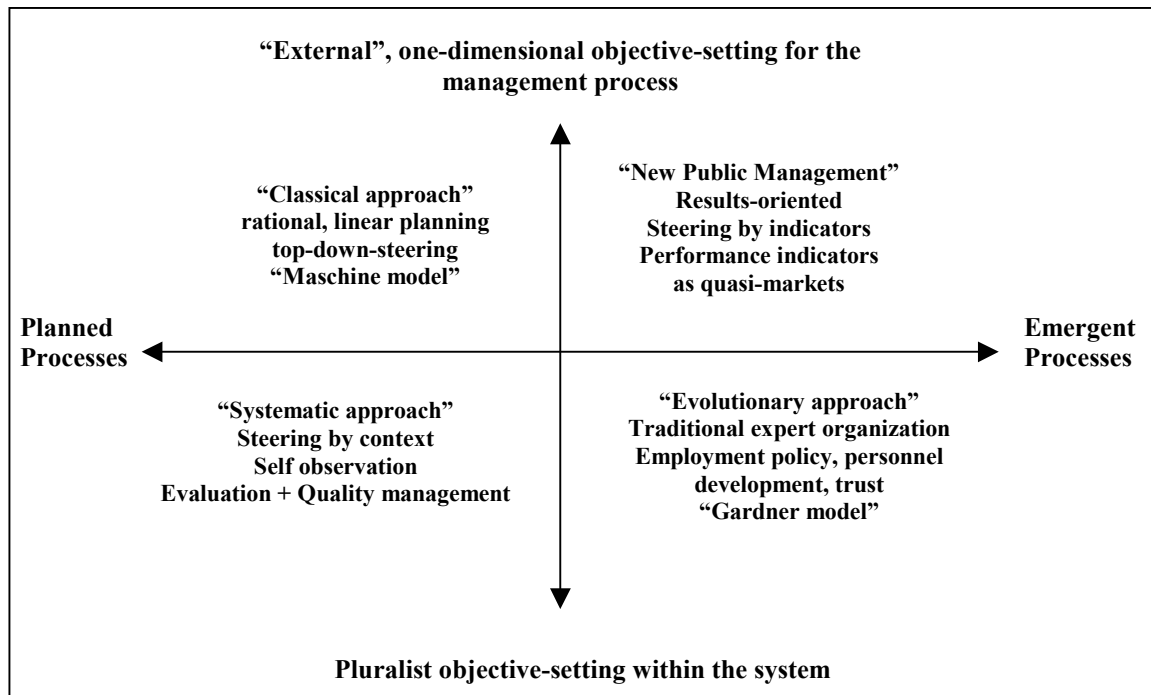


Figure 5: Strategic fields in higher education development

The upper left quadrant shows the “classic” approach to strategy formulation and implementation, in which the institutional leadership determines the objectives and designs the necessary implementation processes. Such an approach includes, for example, fundamental re-organizing processes, such as consolidating separate departments into larger faculties or implementing mergers that rely on the central authority to take responsibility for decision-making within a given timeframe. The upper right quadrant also shows an approach that uses objectives set through external input, but here the conception and implementation of the requisite transfer measures are undertaken within the system itself. This is the main activity field for New Public Management, which as a consequence of its product logic is focused on steering by output. It thus requires results, such as increased fundraising, the “production” of more graduates, or a higher number of doctorates; however, the way in which these results are achieved is determined by the system itself. The lower right quadrant shows the “evolutionary approach” that aligns with the paradigm of the “expert organization”. This is the management model of the classic Humboldtian university; it focuses on attracting good scientists who cannot be “steered” but who are entrusted by the organization to do their work within the recognized limitations of the institution. The lower left quadrant shows the “systematic approach” of higher education development. This emphasizes processes

organized through self-observation of the system, from which conclusions or consequences are then drawn. The main fields of activity here are evaluation and quality management.

It is important that the matrix not be mistaken as a grid for rating “good” or “bad” approaches to strategy. All approaches are legitimate and can work. The adoption of any approach can be justifiable according to the specific situation, time constraints for decision-making, culture and life cycle of the higher education institution, and the purpose of the decision. There is no “right” approach to strategic planning; there are many approaches to be considered for each context. Strategic development occurs in each of these fields, accomplished through collective effort by the players in each field. What follows is then a model that aligns with Mintzberg’s (1999) ideas on configuration. This is where the issues of leadership and the competencies of the leadership team and their relationships to objective, rational planning come to the fore. People in leadership positions have to have access to an entire array of approaches and methodology for strategic planning and development, and they have to be able to apply them together appropriately. Then leadership has less to do with the conceptualization of the strategy, than with the conceptualization of processes through which strategy is developed as an achievement of the system. The entrepreneurial university also requires just this kind of entrepreneurial thinking and acting leadership team.

When the basic model for strategic planning (the sequence of analysis, setting objectives, actions for change and evaluation) is decentralized through such flexibility in the objectives, methodology, and participants, it remains both meaningful and, for a well-ordered strategic process, even indispensable. It shifts from being a linear progression and becomes a reflective, learning cycle that feeds back into the organization (Argyris and Schön 1996), where the decisions that are made remain alterable and new options are opened. In order to allow the cycle of reflection to work, however, the university’s loosely linked experts and sub-units all have to be involved with the development, implementation and revision of the strategy.

Methods and Instruments

Certain methods and instruments have emerged in strategic management as particularly useful for those involved in the four steps of analysis, strategy formulation, actions for change and evaluation. Of course, such instruments can generate certain routines that run the risk of taking on a life of their own; however, they also contribute to anchoring the change process to the very structure of the institution rather than allowing it to remain merely as an agenda of a certain group of individuals. This is necessary in order to ensure stability within the process of reform. Three of the instruments that are relevant to the fields of analysis and objective setting are described briefly below.

SWOT-Analysis

SWOT-analyses are instruments commonly used in higher education today. The intention behind the tool is to compare the institution’s internal potential, or its current strengths and weaknesses, with the opportunities and threats that emerge from an analysis of the external environment. The comparison reveals what goals and actions for change can be developed. For example, in most continental European higher education systems, universities display a relatively strong homogeneity. In the coming years, the trends toward entrepreneurialism and competition could result in greater diversity of institutions within the higher education sector. They may profile themselves as research universities, access-providing institutions targeting

broader population groups, or as higher education institutions that specialize in certain areas of research but otherwise hone their strengths in teaching and learning. SWOT-analyses take the external context into consideration (what are the strengths and weaknesses of the most important competing universities and colleges? What are the foreseeable social needs?) in order to assess separate areas of the institution and determine if it is more appropriately positioned for a profile in research or teaching. The results of the analysis then serve as the foundation for creating a competitive profile and for the institution's strategic positioning in a more diverse higher education landscape.

Working on the assumption that the people who know most about an institution's development potential are the actual members of the respective institution, workshops, group presentations, and moderated podium discussions should be convened in order to make the implicit knowledge explicit (Nonaka and Takeuchi 1995) and to effectively compile all the necessary information. In order to assemble information on developments in the university's external environment, it is best to draw on expert panels, surveys and other sources. When the SWOT-analysis is condensed into strategic objectives, they should be discussed in "top-down/bottom-up planning" sessions with the various sub-units, departments, etc. before they are adopted at the central level as binding goals for strategic development. In this way, the entire exercise should become an institution-wide strategic process; it should be informed by expert knowledge and advice, but the outcomes should occur as a result of the collective work by all members of the university.

In order for the SWOT-analysis to reach the desired depth, it should be oriented toward separate performance fields of an institution or faculty. These are the above-mentioned key processes of research, development of junior academics, and teaching and learning, as well as the central services (budget, staff development, IT services, etc.). With these in mind, goals should then be formulated for the respective performance areas. Meanwhile, it is important that the objectives should not be worked out in too much detail. They should remain as a robust but non-prescriptive catalogue of goals that can serve as an orienting framework for the university, not a constrictive directive.

Portfolio-Analysis

Besides the more discursive, communicative approaches, a more quantitative, figure-oriented instrument can also be used to describe the actual status of an institution. One such instrument is the portfolio (Figure 6), which depicts separate features of the university as compared to the respective features of competing institutions. The analysis for this instrument should again be focused on the separate performance areas of research, development of junior academics, teaching and learning, etc., or the results will be too unspecific to be useful. However, unlike the SWOT-analysis, the portfolio technique is dependent on quantifiable measures, which means the various performance areas have to be "converted" into measurable dimensions. By using two parameters, the x- and y- axes of the portfolio for instance, it is possible to plot the relative competitive position in teaching (graduates and students per professor, graduates' success on the labor market), research (external funding, concluded promotions per professor), and preparation of junior academics (number of doctoral students and post graduates who receive offers as professors or assistant professors at other institutions). Since this approach is mainly concerned with the positioning of the institution in a competitive market, comparative data from an institution with a similar profile are required. The data can either be obtained via benchmarking clubs founded for this purpose, or from available official statistics sources.

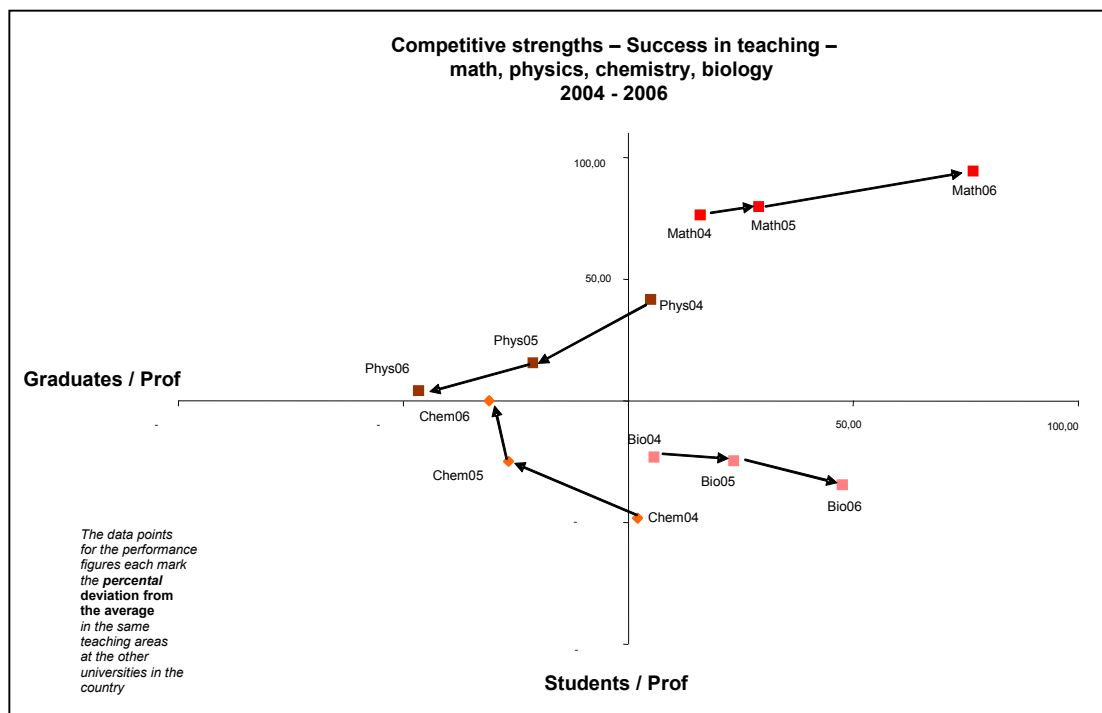


Figure 6: Portfolio to ascertain relative strengths in research

(The reticle represents the average of the respective subjects measured across all universities.)

Internal Contract management

When higher education institutions are above a certain size, it becomes problematic that strategy formulation is a process to be undertaken by the entire university, across various and sundry sub-units. This can be a problem not only during implementation, but during the very process of creating strategy as well. Meanwhile, a purely top-down approach from the center to the various departments would be just as counterproductive as a purely bottom-up approach in which the central powers waited for the sub-units to come up with some strategies. This is where an approach taken from New Public Management can be useful, namely contract management. This instrument uses collective negotiations on goals and activities between the central university level and the different departments to arrive at a mutual agreement or contract. Thus, the desired institutional profile can be established as the strategic framework while it can still be made more compatible with the profiles and strategies of the respective departments. In fact, contract management serves as an instrument for both implementation and strategy, all at the same time.

Nevertheless, without a clear system and structure, and lacking strict financial and operational controls, contract management can easily become a merely futile exercise. The goal and performance cards have often been found useful in the past. The cards are similar to the well-known “balanced scorecard” in business planning (Kaplan and Norton 1996), but are designed to reflect the key processes and service provision in higher education.

Performance area: teaching and learning				
Institutional goal	Services by sub-unit/department	Success criteria	Service needs	Budgetary needs

Figure 7: Goal and performance card

By matching them to a specific type of performance area, the university's goals can be correlated with the results of different actions for change ("services") produced by a faculty or department, and determined via negotiations between the institutional central leadership and the heads of the respective sub-unit. In order to enter into the negotiations, faculties should prepare their own strategy papers prior to the negotiations round. The institutional goals and the goals set by the sub-unit are then compared, and after two or three rounds can be consolidated into concrete objectives to be realized by the sub-unit. In order to assess outcomes fairly, it is very important to establish the criteria by which performance and success are to be measured upon conclusion of the contract (usually 2 years) at the very beginning in the initial agreement. Meanwhile, potential service needs or financial needs encountered by the sub-units while undertaking the activities also have to be enumerated. For example, a department that has agreed to "increase the number of foreign exchange students" may depend on certain services provided by the student secretariat or the international office; in order to provide the services, the office may then need new software, which has to be made available by the IT department. Such examples reveal glimpses into the complex interdependence of performance objectives within a higher education institution. It quickly becomes clear that contract management helps lower the dividing line between "big-picture strategy" and a policy of continual change by keeping the service providers very closely involved in the process. The results of the negotiations are set down in the contract between the central level and the sub-unit; the important outputs that result from the agreements are essential parts of the future strategic plan.

Contract management requires a large amount of time investment. Each round of negotiations between the institutional management and the respective sub-units usually requires two to three hours. There are normally at least two, if not three, meetings of that kind per sub-unit. The first round is mainly used to assemble the different expectations and possibilities, and to prepare for further discussions. Some results may already be recognizable during the second round; however, a number of points will probably remain open and in need of revision, so the results can usually only be confirmed after the conclusion of the third round. In between the different discussion rounds, time is also needed for internal consensus-building and bilateral clarifications. In the end, the entire process normally takes about three months. In the instances where the discussion rounds have been used as opportunities for mutual reflection and exchange, and when they have succeeded in making the lurking, implicit institutional

knowledge manifest and useful, the productivity of the planning process has “paid for itself” as a major contribution toward making the university a truly integrated higher education organization.

Bibliography

Ansoff, H.I. (1965). Corporate Strategy. New York: McGraw-Hill

Argyris, Ch. and Schön, D. (1996). Organizational Learning II. Theory, method, and Practice. Reading, MA: Addison-Wesley

Clark, B.R. (1983). The Higher Education System. Academic Organization in Cross-National Perspective. Berkeley, Los Angeles, London: University of California Press

Kaplan, R.S. and Norton, D.P. (1996). The Balanced Scorecard. Boston: Harvard Business Press

Lewin, K. (1951). Field Theory in Social Science. New York: Harper & Row

Mintzberg, H. (1999). Strategy Safari: A guided tour through the wilds of strategic management. New York: The Free Press

Morgan, G. (1986). Images of Organization. Newbury Park, California: Sage Publications Inc.

Nagel, R. and Wimmer, R. (2002). Systemische Strategieentwicklung: Modelle und Instrumente für Berater und Entscheider. Stuttgart: Klett-Cotta

Nonaka, I. and Takeuchi, H. (1995). The Knowledge-Creating Company: How Japanese Companies create the Dynamics of Innovation. New York: Oxford University Press

Schreyögg, G. (1999). Strategisches Management – Entwicklungstendenzen und Zukunftsperspektiven. *Die Unternehmung. Schweizerische Zeitschrift für betriebswirtschaftliche Forschung und Praxis* **6**, 387 – 407

Schreyögg, G. (2002). Strategie folgt Struktur – Lektionen aus einem empirischen Befund für eine neue Theorie der Unternehmenssteuerung. In Böhler, H. (ed.) Marketing-Management und Unternehmensführung. Stuttgart: Schäffer-Poeschel

Weick, K.E. (1976). Educational Organizations as loosely coupled Systems. *Administrative Sciences Quarterly* **21**, 1-19

Whittington, R. (2001). What is Strategy – and does it matter? 2nd ed, London: Thompson Learning

Further Reading

Birnbaum, R. (2000). *Management Fads in Higher Education: Where they come from, What they do, Why they fall*. San Francisco: Jossey-Bass

Cohen, M.D., March, J.G. and Olsen, J.P. (1971). A Garbage Can Model of Organizational Change. *Administrative Science Quarterly* **17**, 1-25

Keller, G. (1983). *Academic Strategy. The Management Revolution in American Higher Education*. Baltimore: Johns Hopkins University Press

Lindblom, C.E. (1959). The Science of Muddling Through. *Public Administration Review* **2**, 79-88

Lockwood, G. and Davies, J. (1985). *Universities: The Management Challenge*. Windsor and Philadelphia: The Nfer-Nelson Publishing Company

Mintzberg, H. (1994). *The Fall and Rise of Strategic Planning*. New York: Free Press

Tabatoni, P., Davies, J. and Barblan, A. (2002). Strategic Management and Universities' Institutional Development. In European University Association (ed.) *thema 2*: Brussels

Taylor, J. and De Lourdes Machado, M. (2006). Higher Education Leadership and Management: From Conflict to Interdependence Through Strategic Planning. *Tertiary Education and Management*, **2**, 137 -160

Taylor, J. and Miroiu, A. (2002). *Policy Making, Strategic Planning and Management of Higher Education*. Bucharest: European Centre for Higher Education

Weick, K.E. (1995). *Sensemaking in Organizations*. Thousand Oaks, CA: Sage Publications