

# IMPLEMENTING STRATEGIES

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A comparative study of two higher  
education institutions

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## PREFACE

This master thesis is the final assignment of the study Business Administration. It is the result of a research project that is conducted at the Center of Higher Education Policy Studies. The primary objective of this thesis is to find out how higher education institutions implement their strategy. During this research process I was supported by many people and I would like to seize the opportunity to thank these persons.

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## 1. INTRODUCTION

Due to several developments in higher education, the importance of effective planning and management within universities has increased in recent years. Recent developments that make effective planning and management within universities more important are the competitive focus, pressure on resources, accountability and assessment, external interaction and internal management (Taylor & Miroiu; 2002).

In Europe three reform efforts and actual developments are observed in particular. First, the changing structure and substance of higher education in the course of growing demand for systematic knowledge and the continuing expansion of higher education. Second, changes in the steering and administration of higher education (e.g. New Public Management). Terms such as 'steering from a distance' and 'the managerial university' suggest the emergence of a new logic of power, decision-making, and day-to-day administration in higher education (Teichler, 2007). According to Teichler (2007) this change is overshadowed by a tension between improvement through self-reflection and the control of academic work. The third issue is addressed by the terms internationalization and globalization (Teichler, 2007). The assumption is that these changes will influence the strategies of higher education institutions and how these strategic changes are managed. We will look a bit more closely at these changes and higher education in the following section.

### 1.1. New Public Management and the funding model of Dutch higher education

During the 1980s and 1990s, Dutch universities started to adopt their governance and management structures, among other things as the result of new national act on university governance in 1997. The adapted structures were, generally speaking, closer to business models used in the private sector, accompanied and encouraged by market demands (e.g. efficiency, accountability). New Public Management gained ground in (Dutch) higher education (Teichler, 2007). The government reduced its detailed process regulations and controls (less state micro management of the system), and instead moved to a target-setting policy. At the same time university management was strengthened, usually referred to as enhanced institutional autonomy (Teichler, 2007). These changes concern the timing, purpose and location of evaluation in the processes of policy making in higher education (Neave, 1988a as cited by Neave & Van Vught, 1991). The first links routine evaluation with strategic evaluation. The second is the shift from a priori evaluation to a posteriori evaluation. The growing interest of government in strategic evaluation reflects their desire to see higher education itself develop strategic management capacities. Higher education was thus urged to formulate objectives in the long term and to demonstrate how resources are used to attain them. The second shift, from a priori to a posteriori evaluation also reflects where it does not reinforce the displacement of resource control from an ex ante mode at input towards an ex post mode based on output. To an increasing degree, emphasis is being placed on retrospective monitoring of the results achieved by higher education in the light of the resources provided to it. On the evaluation of these results, new policies - including new forms of budget allocation - were planned (Neave & Van Vught, 1991).

The funding model of Dutch higher education is also based on an ex post mode of resource control based on output. Dutch higher education institutions receive government funding for its education and research. These financial resources are allocated in a particular way. The education funding of *hogescholen* is primarily based on student numbers and the amount of time needed for a student to finish a study. When a student finishes his study quickly this is beneficial for the *hogeschool*. So when a student on the other hand takes a long time to finish his study this is harmful for the *hogeschool* (Ministerie van OCW, 2009a). This is because for the funding of *hogescholen*, the amount of tuition fees received is taken into the equation, meaning that the longer a student is registered (e.g. the higher the amount of tuition fees received) the less government funding the *hogeschool* receives for the student. Put in another way, it is beneficial for the *hogeschool* to get their students graduated as quickly as possible. Graduation in 4 years or less, or leaving the study after a year or less is the most profitable for the higher education institution (Ministerie van OCW, 2009a). For Dutch universities education funding is primarily based on graduations (50%) and first year students (13%) (Ministerie van OCW, 2009b).

The question is what the above-mentioned developments imply for the management and strategy implementation at higher education institutions. According to Mintzberg (1979) (as cited by Johnson *et al.*; 2006) higher education institutions are managed through input processes. But because of the New Public Management shift in Dutch higher education with focus on more efficiency and accountability and a partly output based funding system this may have implications for the way higher education institutions are managed. Therefore the expectation is that the processes by which higher education institutions are nowadays managed will be more output based. In other words, higher education institutions will be more focused on the measurable performance indicators, like enrollments figures and study efficiency rates. This focus can be reflected in the realized strategy.

The two cases that were studied are Dutch higher education institutions, one *hogeschool* and one university. Therefore I will briefly describe the higher education system in the Netherlands in the following section.

## 1.2. Higher education in the Netherlands

The Dutch higher education system is a binary system separating the WO (universities) and the HBO (hogescholen or universities of applied sciences) sector. The university sector consists of 13 universities. They prepare students for independent scientific work in an academic or professional sector. The HBO-sector consists of 42 governmental funded *hogescholen*. They offer programs that prepare students for the professional practice and enable them to 'function self-consciously in the society at large' (De Weert & Boezerooij; 2007).

The purpose of the *hogescholen*, defined by the WHW 1993, is to offer theoretical instruction and to develop skills required for practical application in a particular profession (De Weert & Boezerooij; 2007). They are seen as 'teaching only', which is incorrect because they have a research function as well although not as extensive as the universities have. In this respect *hogescholen* differ from universities. Universities, next to educating students, are research intensive. Apart from the research intensiveness, *hogescholen* are not allowed to train PhD students (as universities do) and the number of publicly funded masters programs at *hogescholen* is limited. It is important to note that the research function of the *hogescholen* has changed over the last decade by introducing 'lectoren' in 2001.

Until the mid 1980s there were more than 400 HBO-institutions. Through several groupings and mergers this number was reduced to around 50 institutions by the end of the 1990s. While many reforms took place, the staff's focus strongly remained on teaching. They could barely be characterized as innovative professionals who by means of (own) research made a contribution to the further development of the professional practice, the renewal of the curriculum and increasing the research skills of students (Stichting Kennisontwikkeling HBO; 2008). As an answer to that in 2001 *lectoren* were introduced with the goal to professionalize and broaden the tasks of the teaching staff. The goal of a lector is to conduct practical-oriented research, whereby the outcomes of this practical-oriented research contribute to the professional practice and education (Forum voor Praktijkgericht Onderzoek).

Differences between Dutch universities and *hogescholen* can have an impact on the implementation of strategies regarding teaching. I will try to illustrate this with an example. A difference between Dutch universities and *hogescholen* is that the first type of institutions has far more experience in and a longer tradition with conducting research. The task of a university can be seen as a more complex task, e.g. providing both education and research, compared to a *hogeschool* that is primarily oriented at providing education. If we assume that providing education and conducting research are in competition with each other, because the same academic staff performs both tasks, this can have an impact on strategy implementation. A higher complexity of tasks, at universities, causes that consensus is reached less easily regarding the development and execution of the strategy. This should, in principle, be easier at a *hogeschool*, because a *hogeschool* is a more homogeneous type of institution (e.g. in terms of task complexity). On the other hand, because of this homogeneity at *hogescholen* strategy implementation can be more difficult, this because resistance can act 'en bloc'. Whereas, at the more heterogeneous university resistance, most likely, will be more fragmented and therefore easier to resolve. Another difference between universities and *hogescholen* is the amount of professional autonomy. Universities have a longer tradition in recognizing professional autonomy than *hogescholen* have. If we then assume that professional autonomy

makes integral strategy execution more difficult, we expect to find that strategy implementation at a university is more difficult compared to a *hogeschool*.

Now we will continue this introduction by explaining the concept of strategy and why strategy (and strategic management) in a public organization differs from strategy in a private organization.

### 1.3. Strategy in higher education

Strategy is the direction and scope of an organization over the long term, which achieves advantage in a changing environment through its configuration of resources and competences with the aim of fulfilling stakeholder expectations (Johnson, Scholes, Whittington; 2006). For a higher education institution stakeholder expectations can be excellent education and research. Strategic management of a public institution, and more specific at a university, differs from strategic management at a private institution. This is related to the fundamental difference between a public organization and a private organization. Next to that, higher education institutions are special. These complexities are explained below.

#### 1.3.1. Difference between public and private organization

Whereas entrepreneurs or shareholders own private organizations, members of political communities own public agencies collectively (Boyne, 2002). This distinction is associated with two further public/private contrasts. First, unlike their private counterparts, public agencies are funded largely by taxation rather than fees paid directly by customers. Secondly, public sector organizations are predominantly controlled by political forces not market forces. In other words, the primary constraints are imposed by the political system rather than the economic system (Boyne, 2002). These four dimensions of 'publicness' have three types of organizational consequences.

The first set of consequences is related to the organizational environment. The organizational environment is a complex environment. There is a large variety of stakeholders whom places demands and constraints. Furthermore, public organizations are 'open systems' that are easily influenced by external events. Public organizations also have to deal with political constraints that result in frequent policy changes. Fourth, public organizations typically have few rivals for the provision of their service.

The second set of organizational consequences is related to the goals of a public organization. First of all, public organizations have distinctive goals compared to private organizations, such as equity and accountability. Secondly, public managers have multiple goals imposed upon them by the numerous stakeholders that they must attempt to satisfy. Thirdly, the goals of public organizations are more vague than those of their private counterparts.

The third set of organizational consequences discusses the internal characteristics of public organizations. Public organizations have more bureaucracy, more red tape and lower managerial autonomy compared to private organizations.

The final set of organizational consequences, according to Boyne (2002), concerns the attitudes and aspirations of their staff, both towards work and life in general. Firstly, public sector managers are less materialistic. Secondly, motivation to serve the public interest is higher in the public sector. Thirdly, public managers have weaker organizational commitment (Boyle, 2002).

Now we have made a distinction between a private and public organization, as an answer to the question why strategic management is different in a public organization compared to a private organization some characteristics of higher education institutions will be addressed.

#### 1.3.2. Characteristics of a higher education institution

One definition that identifies the four purposes of higher education is from the National Committee of Inquiry into Higher Education in the United Kingdom of 1997 (as cited in Taylor & Miroiu; 2002):

- a) To inspire and enable individuals to develop their capabilities to the highest potential levels throughout life, so that they can grow intellectually, are well equipped for work, can contribute effectively to society;

- b) To increase knowledge and understanding for their own sake and to foster their application to the benefit of the economy and society;
- c) To serve the needs of an adaptable, sustainable, knowledge-based economy at local, regional, and national levels;
- d) To play a major part in shaping a democratic, civilized, inclusive society

By characterizing higher education institutions as professional bureaucracies they can be distinguished from most other organizations. A professional bureaucracy relies on the standardization of skills rather than work processes or outputs for its coordination. Most important, because it relies for its operating tasks on trained professionals, skilled people who must be given considerable control over their own work, the organization leaves a good deal of the power to the professionals themselves. The structure of a professional bureaucracy is decentralized; power over many decisions, both operating and strategic, flows all the way down the hierarchy to the professionals of the operating core. Next to that, a professional organization does its job best in a stable environment (Mintzberg; 1981). Higher education institutions nowadays operate however in a dynamic environment. Another characteristic of a higher education institution, which is defined by Van Vught (1989)(as cited in Maassen & Potman; 1990), is that the organizational structure is heavily fragmented. There are many decentralized units, like faculties, chairs, and departments. Those operate to a large degree independently from each other.

Besides the changes in the higher education sector do the basic characteristics of higher education institutions make strategic management more complex and therefore interesting to research. The multiple purposes of higher education, the high autonomy at the operational core, the dynamic environment of higher education institutions and the fragmented structure of a higher education institution make strategic management in higher education a challenging task.

So strategic management in higher education involves a number of particular characteristics. Because in this thesis we look at public higher education institutions we have to acknowledge the public character: the common good argument. Next to that, higher education institutions are complex professional bureaucracies with high level of decentralized steering and self-management, which are confronted with greater external dynamics and demands as well as with greater performance demands. This means more need for central steering & strategy in organizations that are fragmented. Overall, this makes it interesting to study how strategy implementation takes place.

Before and during the implementation of a strategy several things are of importance for successful implementation. For example, the strategic planning process, strategic consensus of the deans and communication are of importance. This research shall, among others, address these topics. This thesis focuses on strategy implementation, and to be more precise, strategy implementation at the faculty level of the higher education institution. Figure 1.1 shows the position of strategy implementation. On the left side of the figure we see the strategy of the higher education institutions. The deans of the faculties take this strategic plan and implement it into their faculties. Eventually this leads to a realized strategy at faculty level.

**Figure 1.1: Position of strategy implementation**



The key question of this thesis is how well the overall strategy of a higher education institution is put into practice by the different faculties and other units, and how this relates to strategy realization. In the following section the problem statement and research questions are presented.



## 1.4. Problem statement & research questions

Strategies exist at a number of levels in an organization. Generally there are three levels of strategy to distinguish. The first, corporate-level strategy, is concerned with the overall scope of an organization and how value will be added to the different parts of the organization. The second level is named as the business level strategy, which is about how to compete successfully in particular markets, or how to provide best value services in the public services. So whereas corporate-level strategy involves decisions about the organization as a whole, strategic decisions here need to be related to a strategic business unit (SBU). A strategic business unit is a part of an organization for which there is a distinct external market for goods or services that is different from another SBU (Johnson *et al.*; 2006). Within higher education institutions the strategic business units can be conceptualized around the different faculties and research institutes, or smaller units within them. The third level of strategy is at the operating end of an organization. Here there are operational strategies, which are concerned with how the component parts of an organization deliver effectively the corporate- and business level strategies in terms of resources, processes and people (Johnson *et al.*; 2006).

The purpose of this research is to examine how the different types of higher education institutions translate the corporate strategy into a business level (e.g. faculty level) strategy and how they execute this strategy. Two higher education institutions will be studied, a university and a *hogeschool* because I expect to find different outcomes between the different types of higher education institutions. The focus of this research will not be how the *whole* corporate strategy of the higher education institution is implemented in the different faculties, but only the *education* strategy. This choice is made because a *hogeschool* (in contrast to a university) primarily focuses on teaching. The research function is in development but still in a starting stage. So focusing only on the education strategy will make it possible to fairly compare both kinds of higher education institutions. Next to that, this choice is made in order to limit the scope of the research.

### 1.4.1. Problem statement

A public higher education institution differs from a private organization, as explained in the previous chapter. Merely because of the multiple goals a higher education institution tries to achieve, the dynamic environment it operates in and the high autonomy that employees in a higher education institution have. Because of the latter, the expectation arises that the faculties will use their autonomy to implement the corporate educational strategy in different ways, perhaps resulting in different effects (e.g. outcomes). Moreover, I am curious to find out if there are differences between different types of higher education institutions, e.g. a *hogeschool* and a university, regarding implementation of the corporate education strategy by the faculties. I expect to find differences because of the different origin of both types of higher education institutions. This study tries to address the question how the corporate education strategy of two higher education institutions, a *hogeschool* and a university, is implemented by the different faculties of the two higher education institutions. Building upon the expectation that different faculties of a higher education institution will implement the corporate education strategy in different ways I will look if this has implications for the realized strategy.

### 1.4.2. Research questions

In order to conduct this research the following main research question is formulated:

*How is the corporate education strategy of a hogeschool and of a university implemented by their different faculties? And does this have an impact on the realisation of the corporate education strategy?*

To answer this main research question the following sub questions are formulated:

1. *What is strategic management and how can it be applied to higher education institutions?*
2. *How do academies of a hogeschool and faculties of a university translate and execute the corporate educational strategy?*
3. *What are the similarities and differences in the translation and execution of the corporate educational strategy by the academies of the hogeschool and faculties of the university?*

4. *Did the academies of a hogeschool and the faculties of a university contribute to the realization of the corporate educational strategy?*
5. *Can the extent of strategy realization of the academies of a hogeschool and the faculties of a university be explained by the way the corporate educational strategy was implemented?*

### 1.5. Structure of the thesis

The thesis is structured in the following way. Chapter 2 concerns the theoretical framework that will be used for this research, consisting of theories about strategic management and strategy implementation. It also addresses strategy in higher education. The third chapter concludes with the research model and related expectations. Chapter 3 discusses the methodological considerations and data collection methods that are used to perform the research. Chapter 4 presents the results of the conducted research, e.g. the outcomes of the interviews and data analysis. Furthermore will there be a discussion of the expectations that were developed in chapter 3. In chapter 5 the answer on the main research question and sub questions is given. Chapter 5 concludes with a reflection.

## 2. THEORETICAL FRAMEWORK ON STRATEGIC MANAGEMENT

The theoretical framework on strategy is divided in three parts. The first part (2.1) discusses strategic management in general, the second part (2.2) discusses strategic management in higher education and the third part (2.3) discusses the operational theories used to perform this research.

### 2.1. Strategic management

Strategy is the direction and scope of an organization over the long term, which achieves advantage in a changing environment through its configuration of resources and competence with the aim of fulfilling stakeholder expectations (Johnson *et al.*; 2006). Strategic decisions tend to be complex in nature, be made in situations of uncertainty, affect operational decisions, require an integrated approach and involve considerable change (Johnson *et al.*; 2006).

The key area of strategy making in organizations concerns the elaborations of the basic mission (the products or services offered to the public). Other important areas of strategy include the inputs to the system (notably the choice and subsequent tenuring of academic staff, the determination of student enrollment, and the raising of external funds), the means to perform the mission (the construction of buildings and facilities, the purchase of research equipment etc.), the structure and forms of governance (design of the committee system, the hierarchies, the regulations concerning promotion and tenure, etc.), and the various means of support for the mission (notably the elaboration of the university's support structure, from computers and libraries to alumni offices and printing facilities)(Hardly *et al.*; 1984).

Strategic choices involve understanding the underlying bases for future strategy at both business unit and corporate levels and the options for developing strategy in terms of both the directions and methods of development. Translating strategy into action is concerned with ensuring that strategies are working in practice as intended. Because the scope of this research is to evaluate how a strategy is achieved, it is important to know how an organization needs to be organized in order to put its strategy, effectively, into action. Therefore I will now discuss the element of translating strategy into action in more detail.

After an organization understands its strategic position and has made strategic choices the organization has to be organized in such a way that for the organization it is possible to achieve its strategy. Therefore an organization, as a minimum, needs to consider its configuration consisting of an organizational structure, organizational processes, and the management of relationships. Next to that it is also important to look at the relationship between the overall strategy of the organization and its strategy in four key resource areas: people, information, finance and technology. Finally, it needs to be taken into account how strategic change is managed (Johnson *et al.*; 2006). These topics will be discussed in this section. Furthermore the section ends with discussing several implementation options that are available in order to implement a strategy.

#### 2.1.1. Organizational configuration

An organisation's configuration consists of the structures, processes and relationships through which the organisation operates. Configuring the organisation so that all these elements fit both together and with key strategic challenges is crucial to organisational success (Johnson *et al.*; 2006). As will be explained in 2.4 we will focus on the functional structure, multidivisional structure and team-based structure as this is most relevant for this study. Regarding organizational processes we will focus on cultural processes, processes of self-control and performance targeting.

##### *Structural design*

The structural design of an organization describes the roles, responsibilities and lines of reporting in an organization. Structural design can deeply influence the sources of an organization's advantage, with regard to knowledge management; failure to adjust structures appropriately can fatally undermine strategy implementation. The structural design of an organization is important for several reasons. First of all a structure describes who is responsible for what. This is important because it provides clarity, for example in who to report to and who makes certain decisions. Secondly, structural reporting lines shape patterns of

communication and knowledge exchange. People tend not to talk much to people much higher or lower in the hierarchy, or in different parts of the organization. Thirdly, the kinds of structural positions at the top suggest the kinds of skills required to move up the organization (Johnson *et al.*; 2006). Miles *et al.* (1978) underline the importance of organizational structure, and also organizational processes, in relation to strategy. They argue that when an organization has developed a strategy they construct mechanisms, organizational structure and organizational processes, to pursue their defined strategy.

According to Mintzberg (1979)(as cited by Johnson *et al.*; 2006) the typical structure of a professional bureaucracy, such as a higher education institution, is a functional structure. More about the organizational configuration in higher education is found in section 2.2.1. Now we have stated the importance of organizational structure and mentioned the organizational structure of a higher education institution, we will start discussing the seven basic structural types mentioned by Johnson *et al.* (2006).

Functional structure: primary based on the activities that have to be undertaken by an organization such as production, finance and accounting, marketing, human resources and research and development.

Multidivisional structure: build up of separate divisions on the basis of products, services or geographical areas.

Holding company structure: an investment company consisting of shareholdings in a variety of separate business operations

Matrix structure: a combination of structures which could take the form of product and geographical divisions or functional and divisional structures operating in tandem.

Transnational structure: combines the local responsiveness of the international subsidiary with the coordination advantages found in global product companies.

Team-based structure: attempts to combine both horizontal and vertical coordination through structuring people into cross-functional teams

Project-based structure: is a structure where teams are created, undertake the work and are then dissolved.

The functional structure is typically found in smaller companies, or those with narrow, rather than diverse, product ranges. Within a multidivisional structure, the divisions themselves may be split up into functional departments. A major advantage of the functional structure that there is a clear definition of responsibilities, but on the other hand co-ordination between functions is difficult.

A multidivisional structure often comes about as an attempt to overcome the problems that functional structures have in dealing with diversity. Divisionalisation allows a tailoring of the product/market strategy to the requirements of each separate division and can improve the ownership of the strategy by divisional staff. In many public services organizations are structured around service departments. Logically, the main advantage of a multidivisional structure is that it concentrates on a specific business area. Disadvantages are the possible confusion over locus of responsibility, conflicts between divisions and that it can be costly. The latter can be the case because every department (e.g. sales, finance, HRM) is present in each division.

The third structural type mentioned is the holding company. A holding company structure is based on the idea that the constituent business will operate their product/market strategy to their best potential if left alone, particularly as business environments become more turbulent. Beneficial to this structure is that business can benefit from their membership of the group. The holding company itself may also claim benefits, such as the spreading of risk across many business ventures and the ease of divestment of individual companies. The greatest weaknesses of this structure are the lack of internal strategic cohesion and duplication of effort between businesses.

As fourth, there is the matrix structure. Matrix structures may be adopted because there is more than one factor around which knowledge needs to be built whilst ensuring that these separate areas of knowledge can be integrated. For example, a global company may prefer geographical defined divisions as the operating units for local marketing. But at the same time they may still want global product divisions responsible for the worldwide coordination of product development, manufacturing and distribution to these geographical divisions. Because a matrix structure replaces formal lines of authority with (cross matrix) relationships, this often brings problems. In particular, it will typically take longer to reach decisions since they may result from bargaining or consensus rather than imposition.

The transnational structure is a means of managing internationally that is particularly effective in exploiting knowledge across borders. The transnational structure is like a matrix but has two specific features: first, it responds specifically to the challenge of globalization; second it tends to have more fixed responsibilities within its crosscutting dimensions. The success of a transnational corporation is dependent on the ability simultaneously to achieve global competences, local responsiveness and organization-wide innovation and learning. The transnational structure is very demanding of managers in terms of willingness to work not just at their immediate responsibilities but for the good of the transnational as a whole (Johnson et al.; 2006).

The team-based structure and project-based structure are more temporary structures within an organization. Cross-functional themes are often built around business processes. Sometimes team-based structures are adopted to reflect the diversity of customers. For example, in a university department different teams of lecturers and administrators may be created to support separately the undergraduate and postgraduate students. But lecturers are still connected to their academic subject group too.

With a project-based structure the organization structure is a constantly changing collection of project teams created, steered and glued together loosely by a small corporate team. Many organizations use such teams in a more ad hoc way to complement the 'main' structure.

Overall, team-based and project-based structures have been of growing importance because of their inherent flexibility which is seen as so important in a fast-moving world where individual knowledge and competences need to be redeployed and integrated quickly and in novel ways (Johnson et al.; 2006).

*Processes*

As mentioned in the previous section, organizational structure and organizational processes are related. According to Miles et al. (1978) they are both mechanisms constructed to pursue the defined strategy. Processes are controls on the organization's operations and can therefore help or hinder the translation of strategy into action. Control processes can be subdivided in two ways. First, they tend to emphasize either control over inputs or control over outputs. Input control processes concern themselves with the resources consumed in the strategy, especially financial resources and human commitment. Output control processes focus on ensuring satisfactory results, for example the meeting of targets or achieving market competitiveness. The second subdivision is between direct and indirect controls. Direct controls involve close supervision or monitoring. Indirect controls are more hands-off, setting up the conditions whereby desired behaviors are achieved semi-automatically. Organizations normally use a blend of these control processes, but some will dominate over others according to the strategic challenges (Johnson et al.; 2006). According to Mintzberg (1979) (as cited by Johnson et al.; 2006) the typical processes of a professional bureaucracy, such as a higher education institution, are cultural processes and self-control. The different types of control mentioned by Johnson et al. (2006) are mentioned below.

Figure 2.1: Types of control processes		
	<i>Input</i>	<i>Output</i>
<i>Direct</i>	Direct supervision Planning processes	Performance targeting
<i>Indirect</i>	Cultural processes Self-control	Internal markets

Source: Johnson et al.; 2006

Direct supervision is the direct control of strategic decisions by one or a few individuals. It is a dominant process in small organizations. It can also exist in larger organizations where little change is occurring and if the complexity of the business is not too great for a small number of managers to control the strategy *in detail* from the centre. Direct supervision may also be appropriate during major change, such as a

organizational crisis. Here the survival of the organization may be threatened and autocratic control through direct supervision may be necessary.

Planning processes plan and control the allocation of resources and monitor their utilization. The focus is on controlling the organization's inputs, particularly financial. A plan would cover all parts of the organization and show clearly, in financial terms, the level of resources allocated to each area. It would also show the detailed ways in which this resource was to be used.

Processes of self-control achieve the integration of knowledge and coordination of activities by the direct interaction of individuals without supervision. Hereby it is important that the context for the individuals is shaped to ensure that knowledge creation and integration is working. If individuals are to have a greater say in how they perform their work and achieve the organization's goals, they need to be supported in the way in which resources are made available to them. Besides that, the type of leaders and leadership style strongly influence personal motivation. The credibility of leaders is important.

Cultural processes are concerned with organizational culture and the standardization of norms. Control is exerted on the input of employees, as the culture defines norms of appropriate effort and initiative. Cultural processes are particularly important in organizations facing complex and dynamic environments. The fostering of innovation is crucial to survival and success in these circumstances. Collaborative cultures can foster 'communities of practice', in which expert practitioners inside or even outside the organization share their knowledge to generate innovative solutions to problems on their own initiative.

Performance targets relate to the outputs of an organization (or part of an organization). The performance of an organization is judged, either internally or externally, on its ability to meet these targets. Many managers find the process of developing a useful set of PIs or their organization difficult. One reason for this is that many indicators give a useful but only partial view of the overall picture. Also, some indicators are qualitative in nature, whilst the hard quantitative end of assessing performance has been dominated by financial analysis. In an attempt to cope with this very heterogeneous situation, balanced scorecards have been used as a way of identifying a useful, but varied, set of key measures.

Market processes are the dominant way in which organizations relate to their external suppliers, distributors and competitors. They involve some formalized system of 'contracting' for resources. Over the recent past, many organizations have introduced a formal *internal market*. For example, a customer-supplier relationship may be established between a central service department, such as training or IT, and the operating units. It then becomes an important management task to regulate and manage this internal market.

#### *Relationships*

A key aspect of an organization's configuration is the ability to integrate the knowledge and activities of different parts of an organization and with other organizations. Relationships are an important part of this and can be divided in internal and external relationships. Relating internally is concerned with where responsibility and authority for operational and strategic decisions should be vested inside an organization. Relating externally on the other hand is concerned with issues as outsourcing, strategic alliances, networks and virtual organizations that may help or hinder success (Johnson *et al.*; 2006).

Relating internally can be divided in relating to the centre and relating to strategy. Relating to the centre addresses the issue of devolution, which is the extent to which the centre of an organization delegates decision making to units and managers lower down in the hierarchy (Johnson *et al.*; 2006). Relating over strategy is concerned with how responsibilities for strategic decision-making are divided between the centre and the business units.

#### **2.1.2. Strategy and key resource areas**

An organization has four key resource areas, namely people, information, finance and technology. It is important to mention these key resource areas briefly because (the lack of) these resources can influence strategy realization. For example when there is limited budget available for the development of new study programs this can have a negative effect on the realization of an educational strategic objective concerning the development of new study programs.

### *People*

The knowledge and experience of people can be the key factors enabling the successful implementation of strategies. Creating a climate where people strive to achieve success is for instance likely to be an important part of (implementing) an organizations strategy. People are the most important resource in a higher education institution. In a higher education institution the academics form the operational core of the organization. The people dimension of strategy can be divided in people as a resource, people and behavior and the need to organize people. People as a resource is concerned with the personal and organizational competences needed and performance management, people and behavior refers to personal and collective behaviors and organizing people is concerned with the HR function, the role of line managers and the structures and processes.

### *Information*

Information strategy is concerned with to which extent improvements in information processing capability (through IT and information systems) can assist the way in which knowledge is created and shared both within and around an organization.

### *Finance*

Finance and the way that it is managed can be a key determinant of strategic success. For the public sector this primarily concerns to deliver the best value within financial limits. Johnson *et al.* (2006) define three issues that organizations face in terms of the relation between strategy and finance:

- Managing for value, whether this is concerned with creating value for shareholders or ensuring the best use of public money (e.g. budgets).
- Funding strategic developments.
- Financial expectations of stakeholders will vary, both between different stakeholders and in relation to different strategies.

### *Technology*

Technological development is the final resource of the four resource areas considered. This will affect the competitive forces on an organization and also its strategic capability. Issues that need to be taken into account about the relationship between business strategy and technology and how technology can enable strategic success are: how technology changes the competitive situation, technology and strategic capability and organizing technology to achieve advantage.

## **2.1.3. Managing strategic changes**

In the previous sections I described strategic management and the structures, processes and resources that play a role when strategies are put into action. Important is also how strategic change is managed because changing structures, processes and resource strategies do not automatically mean that people are willing to change. Johnson *et al.* (2006) provide five different styles of how strategic change can be managed, which are shown in the figure below. This will not be a part of the theoretical framework that is provided in 2.5 but it is nevertheless important to know that there are different ways of managing strategic change.

**Figure 2.2: Styles of managing strategic change**

<i>Style</i>	<i>Means/context</i>	<i>Benefits</i>	<i>Problems</i>	<i>Circumstances of effectiveness</i>
<i>Education and communication</i>	Group briefings assume internalization of strategic logic and trust of top management	Overcoming lack of (or mis) communication	Time consuming Direction or progress may be unclear	Incremental change or long-time horizontal transformational change
<i>Collaboration /participation</i>	Involvement in setting the strategy agenda and/or resolving strategic issues by taskforces or groups	Increasing ownership of a decision or process May improve quality of decision	Time consuming Solutions/outcome within existing paradigm	Incremental or no-crisis transformational change
<i>Intervention</i>	Change agent retains co-ordination/control: delegates elements of change	Process is guided/controlled but involvement takes place	Risk of perceived manipulation	Incremental or no-crisis transformational change
<i>Direction</i>	Use of authority to set direction and means of change	Clarity and speed	Risk of lack of acceptance and ill-conceived strategy	Transformational change
<i>Coercion/edict</i>	Explicit use of power through edict	May be successful in crises or state of confusion	Least successful unless crisis	Crisis, rapid transformational change or change in established autocratic cultures

Source: Johnson et al. (2006)

The managerial style in times of strategic change can influence strategy implementation. The scheme above can be seen as a continuum distinguishing ‘soft’ approaches and ‘hard’ approaches. Education and collaboration and collaboration/participation can be seen as ‘soft’ approaches in order to managing strategic change. On the other hand direction and coercion/edict can be classified as ‘hard’ approaches to managing strategic change. Because of the high skilled employees at the operational core of a higher education normally higher education institutions will be managed with ‘soft’ type approaches.

This chapter that discusses strategic management in general continues by discussing several methods by which strategy can be implemented.

**2.1.4. Implementation options**

To accommodate the successful implementation of a strategic plan, two things are important: strategic planners must know their options for implementing the plan and they must select the appropriate method of implementation (Rowley & Sherman; 2002). In this section eleven options, distinguished by Rowley and Sherman (2002), are discussed. These options concern how strategic change can successfully be implemented. These options vary in the time perspective, from short-term to long-term. Each option mentioned will be discussed in more detail below. From these eleven options this thesis will focus on participation. Participation is explained in more detail in section 2.3.1.



Long-term options

*Human resource management structure;* The university strategic plan should be long-term in nature. Naturally, over time, the mix of people across the entire university changes. By determining the future direction of the campus and then using the human resource management (HRM) system to implement it over time, the current structure will change to accommodate even the most major university changes with negatively affecting the present human base.

*Institutional culture;* Incorporating culture into the strategic change process involves a series of steps. First, it is important to recognize that the culture exists. Second, it is important to understand that the culture is strong. Third, it is important to determine that the culture can be as much of an ally as a foe. Fourth, it is important to build the change from inside the culture. Finally, fifth, it is important to use culture as a way to weave the change more permanently into the fabric of campus life. When the norms of the culture include the acceptance of a strategic academic plan that will help make the campus and the individual professors all better prepared for the future in a positive way, then the plan will go forward with essentially no resistance.

*Tradition;* Tradition is part of an institution's culture and by its very nature is long-term in orientation. It speaks to a large degree to what the college or university has become. Tradition is historic and honored, a source of reverence, awe, and inspiration. Every campus has its traditions, and these traditions have a role in the strategic planning process. Being able to tie the strategic planning process to an enhancement of positive traditions is a powerful way of helping to support the implementation process.

Intermediate term options

*Reward system;* Another way to implement the strategic plan is to reward people for positive execution of the plan. Simply, people respond better to the planning process if they believe it will benefit them, and rewarding them for their efforts is clearly a benefit. Not all rewards need to be monetary. Release time, program development and recognition, personal recognition, improved relationships, a sense of community, and a sense of accomplishment are non-revenue related rewards that provide individuals with a positive outcome for their efforts.

*Participation;* Participation means that everyone affected by a process is involved in the decision-making that leads to the final decision as well as with implementation. Simply, people almost always support changes they themselves have proposed. Participation offers a more democratic and egalitarian approach, which may be more effective over time.

*Goals and key performance indicators;* Another method of implementing change is use of goals and key performance indicators (KPIs). This method is based on a series of achievement goals that quantify all the issues the strategic plan has addressed. Therefore, KPIs work more easily for quantifiable areas of the strategic plan than for nonquantifiable areas.

*Change champions;* People who are already enthusiastic about changes they are implementing with regards to the strategic plan can be excellent resources in recruiting, training and helping other professionals to do so. By including change champions in the strategic planning process, by providing them support for their ideas, and by building appropriate parts of the strategic plan with them, leaders and planners find that these people return to their own activities excited and eager to help bring out the change.

*Faculty and staff development;* As institutions look to shift their academic direction over time based on their strategic plan, they may review their human resource base at all levels and ask how appropriate the current skill base is for their current needs. The result of this analysis may be that current staff should change to better meet strategic goals. By retraining and realigning the human resources of the campus as trends become clear, leaders and planners can retain valuable people and keep them current.

*Successful systems;* For a university strategic plan to be successful it is important to implement it in an incremental fashion. Leaders and planners can experience success in the early stages of the implementation process by carefully selecting parts of the plan they know will be easier and straightforward to implement. With this success, they will have support in taking the next implementation steps.

Short-term options

**Budget;** An effective way of implementing a strategic plan is through building a budget that supports it. Ansoff (1965)(as cited in Rowley & Sherman; 2002) suggested that budgeting was the key to implementing a strategic plan. An institution’s budget is the single most powerful activity on the campus. Control of the budget is control of the strategic plan as well as control of the campus. One problem is that budgets are themselves constrained. There are never enough resources to meet all the demands and requests. An advantage of having a strategic plan to help guide budgeting is that university strategic priorities come to the fore and help identify the most crucial budget areas that affect the long-term success and survivability of the university.

**Force;** In most college and university situations, the use of force to create and implement a strategic plan is uncommon. However there are exceptions, one of these exceptions is the situation of crisis. When a university finds it-self in a life-threatening situation, force may be the only way of making significant changes that will save the university.

So far I discussed several strategic management issues in general. First of all organizational configuration that consists of organizational structure, processes and relationships. Secondly, the relationship between strategy and key resource areas. Thirdly, five different managerial types in times of strategic change. And fourthly, several options that can be used to implement a strategic plan. The following chapter will focus on specific on strategy in higher education.

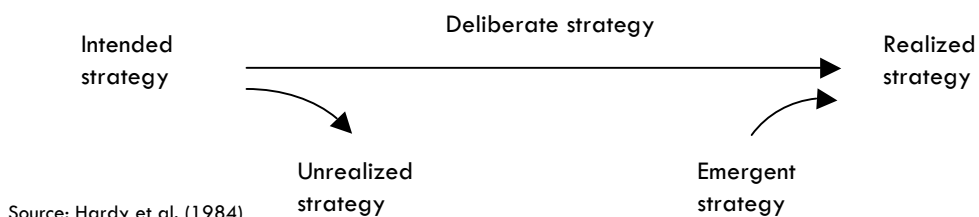
**2.2. Strategy in higher education**

In their article *strategy formation in the university setting* Hardy, Langley, Mintzberg & Rose (1984) mention that it is well-known that strategies are formulated before they are implemented, that planning is the central process by which they are formulated and that structures should be designed to implement given strategies. In the university setting, these imperatives stand almost totally at odds with what happens in practice, leading to the conclusion either that universities “have it all wrong” or that the strategy theoreticians do (Hardy *et al.*; 1984).

Hardy *et al.* (1984) mention several reasons why theory does not match reality. First, there is mentioned that few universities had experience with strategies and strategic management. This is something that they have to learn. Besides that, some plea that strategies need to be developed following the methods generally accepted in business. Secondly it is mentioned that when universities do formulate strategies, they consistently fail to implement them satisfactorily because of a deplorable lack of administrative power, leadership, skill or courage in the face of opposition (Hardy *et al.*; 1984). Thirdly, Hardy *et al.* (1984) propose that the conventional view of strategy – as a plan, or a set of explicit intentions proceeding and controlling actions – is too narrow to permit a satisfactory understanding of strategy formation in the university setting.

An alternate view of strategy focuses not on *a priori* articulations of *intention*, but on the existence of consistency in the actions and/or decisions emerging from an organization. In their view an organization can have a realized strategy without having an intended one. This means that strategies can exist without the efforts of central actors, that the formulation of strategies need not necessarily precede their implementation, and that strategies themselves need not necessarily be explicit (Hardy *et al.*; 1984). In figure 3.3 shown below, this can be referred to as *emergent* strategy, to distinguish it from *deliberate* strategy (where *a priori* intentions were realized more or less).

**Figure 2.3: Various types of strategy**



Source: Hardy *et al.* (1984)

When looking in reality, many higher education institutions nowadays have intended strategies. These are usually made explicit through documents in which they translate their mission and vision into (strategic) goals and objectives. Examples of such documents are multi-annual plans, vision documents or institutional plans. All Dutch universities and hogescholen have (strategic) institutional plans. They are a legal condition to obtain public funding. However, from plan to action is a long way. As argued before it is a difficult task to implement a strategy (as intended), because of the specific characteristics higher education institutions. These are already shortly mentioned in the introduction but I will restate some of them in order to convince why it is interesting to research strategy implementation in higher education institutions.

First of all, higher education institutions are multi product organizations. Baldrige (1983) mentions that goal ambiguity is common in academic organizations. When looking at several strategic documents of Dutch universities and hogescholen this becomes clear. Many higher education institutions provide education, conduct research and valorization of knowledge to the society. It may well be that there are tensions between the multiple goals a higher education institution needs to achieve because they have different underlying rationales and processes and they can be competitive (in the sense of limited resources such as people and money). One of the challenges of strategic management is to deal with such tensions adequately.

In contrast with a business firm which seeks to make a profit universities have vague, ambiguous goals. Baldrige (1983) lists many goals which are all valid for some reason: teaching, research, service to the local community, administration of scientific installations, housing for students and faculty, support of the arts and solving social problems. Next to the fact that university goals are unclear, they are also highly contested. As long as goals are left ambiguous and abstract, people agree: as soon as they are concretely specified and put into operation, disagreement arises (Baldrige; 1983).

Higher education institutions are built up from a highly fragmented professional staff. A university consists of multiple clusters of experts. These academics identify themselves mostly with their own discipline, and after that with the academic profession as a whole. According to the literature they are less committed to the organization. The governing of universities is because of that significantly influenced by these professional clusters (Baldrige; 1983).

One of the most important reasons affecting the implementation of a strategy in a higher education institution is because of the high level of professionalism which dominates the academic task. Baldrige (1983) mentions four important facts about professional employees:

1. Professional employees demand work autonomy and freedom from supervision; they base their work on skill and expertise and demand to be left alone to apply them.
2. Professionals have divided loyalties; they have 'cosmopolitan' tendencies, and their loyalty to peers in their discipline around the nation sometimes conflicts with their 'local' tendencies to be good employees for their organization.
3. There are strong tensions between professional values and bureaucratic expectations in an organization; these can intensify conflict between professional employees and organizational managers.
4. Professionals demand peer evaluation of their work; they feel only colleagues can judge their performance, and they reject the evaluations of non-colleague managers, even if those managers are technically 'superior' in the hierarchy.

Professional autonomy is related to the execution of strategic management. A higher education institution is dependent on the attitude of the professionals. They possess the desirable expertise for the development of the strategy and the necessary expertise for the execution of it. Professionals are capable of using this power advantage. Because these professionals are not a homogeneous group, e.g. their interests and wishes can differ per faculty or department, it is difficult to develop and execute a (educational) corporate strategy that takes into account all these different visions. This is made more difficult by the fact that the passion of the professional is related to his discipline and not to the organization. So there is a certain amount of apathy from the side of the professional. These both factors make that the execution of an

intended strategy cannot be taken for granted. It is a dynamic process and a source for potential conflict that is worth to research.

### 2.2.1. Organizational configuration in higher education

In the introduction was mentioned that higher education institutions could be characterized as professional bureaucracies. According to Mintzberg (1979)(as cited by Johnson *et al.*; 2006) the typical structure of a professional bureaucracy is a functional structure, with cultural processes and self-control as key processes and devolved relationships as the typical relationships. Questionable is if a higher education institution really operates in a functional structure. You can also argue that a higher education institution has a multidivisional structure, separating divisions between different types of education (e.g. into faculties) and research (e.g. into research institutes). Next to that I can also imagine that many of the work in higher education institutions is team-based. For example, in practice several people do a research project and this can also be true, though to a lesser extent, for giving a course. Another interesting question that can be raised is related to the key processes, which are cultural processes and self-control. Both key processes are input processes. So questionable is if there are also output controls present in a higher education institution. And if present, what these processes look like. Last part of the organizational configuration is the type of relationships that are typical in the higher education organization. The typical relationship in a higher education institution is a devolved relationship, which means decision making is delegated to units lower in the hierarchy, but some functions are centralized (e.g. finance, HRM, schedules). Here there can be questioned to which extend certain functions need to be centralized and which need to be devolved.

Overall, the expectation is that higher education institutions do not have a solely functional structure but also has a multidivisional structure and besides that makes use of teamwork. Regarding organizational processes the expectation is that besides cultural processes and self-control higher education institutions also make use of output processes, such as performance indicators.

The dean<sup>1</sup> has an important position within a higher education institution when it comes to strategic management. Therefore it is wise to explain a bit more about the position of the dean within a higher education institution.

### 2.2.2. The changing position of the dean

In this section I will argue why it is interesting to focus on the position of the dean (e.g. middle management within a higher education institution) when it comes to implementing a strategy. Describing the changes in higher education that made the position of the dean a more important one will do this.

As mentioned in the previous section, higher education institutions have changed. Because of these changes, especially in universities, the role of the dean changed as well. To put it in the words of De Boer & Goedegebuure (2009), the 'executive' dean has taken over from the 'traditional' dean, who was elected *primus inter pares* minding the shop.

In many countries, the formal powers of university leaders and managers have increased at the expense of more collegial or participative modes of governance (Eurydice, 2008 as cited in De Boer & Goedegebuure, 2009). Today's deanship as the pivotal leadership and management position at the university's middle level exemplifies these organizational shifts. As a consequence of the changes and reforms in higher education, a 'new generation' of deans has emerged and on face value their role has become more prominent. 'Modern deans' face the challenges of becoming strategic actors much more than their predecessors (De Boer & Goedegebuure, 2009).

The last three to four decades the university has gone through a period of profound change (De Boer & Goedegebuure, 2007). This was already briefly mentioned in the introduction and elaborated upon when

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<sup>1</sup> The dean is the head of a university faculty. At Saxion Hogescholen the head of an *academie* is called a faculty director. But in this thesis the faculty directors of Saxion Hogescholen are also called deans.

discussing New Public Management. Besides the 'introduction' of New Public Management in higher education the external environment also changed. The external environment has become increasingly complex, with more and more demands placed upon the university by increasingly vocal, influential and diverse groups of stakeholders. Simultaneously, universities have significantly expanded in size and complexity as a result of processes of massification and (research) specialization. These multiple pressures have impacted on management and leadership (De Boer & Goedegebuure, 2009). Universities increasingly need to demonstrate their effectiveness at meeting societal expectations; therefore the need for strong institutional management emerges (De Boer & Goedegebuure, 2009).

As a result of responses to changes in the environments of organizations (e.g. which are described above), the role of middle managers is changing and gaining importance (De Boer & Goedegebuure, 2009). Middle managers are not just implementers of organizational policies, but play a key role in agenda setting, organizational strategy development and policy design. At the middle level the connection between institutional strategies and implementation is made, making it crucial to organizational success. Middle managers play an important role in the formulation of strategic plans by top-level management, they gather and synthesize information, and they use the resources at their disposal to champion innovative ideas and business opportunities linked to overall institutional strategies (Floyd & Wooldridge, 1994, 1997). On the other hand, Middle managers are not necessarily supportive to achieving organizational goals but also may (and do) use their position and associated power to protect their own self-interests and push their own agendas (De Boer & Goedegebuure, 2007).

It is important to note that management is not confined to the 'top' of the higher education institution, but cascades down to its constituent parts: the faculties, departments, schools and research institutes (De Boer & Goedegebuure, 2009).

To conclude, in a university, and more general in a higher education institution, the dean can be seen as the 'managerial linking-pin' between the board of directors and the academic staff. This makes the dean an interesting object of analysis.

## 2.3. Operational theories

Beer and Eisenstat (2000) define strategy implementation as the appropriate realignment of structure, systems, leadership behavior, human resource policies, culture, values and management processes. It is undoable, due to size constraints, to address all these topics. This research looks at four different aspects that are related to the realignment that is called strategy implementation. First of all it looks at the process prior to strategy implementation, which is the strategic planning process. Secondly, this research will focus at strategic consensus. Thirdly, this research focuses on strategic management processes, the availability of resources and the translation of strategic objectives into concrete initiatives, measures and (achievement of) targets. Fourthly, this research focuses on organizational structure, processes and possible tension between education and research.

Participation in the strategic planning process is explained in section 2.3.1. The concept of strategic consensus is explained in section 2.3.2. In section 2.3.3 the theory of the balanced scorecard as a strategic management system is introduced. This theory covers strategic management processes, the availability of resources and the translation of strategic objectives into concrete initiatives, measures and targets. There are several reasons why the balanced scorecard theory is chosen. First of all because it covers a broad amount of the earlier discussed concepts that are related to strategic management. Secondly, the balance scorecard theory is much a performance (and output) based approach to strategic management, and therefore useful to study if this phenomenon is also emergent in higher education. In other words, the balance scorecard is a useful theory in evaluating strategy realization, in terms of the achievement of certain targets. The chapter concludes with the presentation of the theoretical framework and the related expectations.

### 2.3.1. Participation in higher education strategic management

From the eleven implementation options mentioned in 2.1.4, the participation option will be explored in more detail with this research. The goal of this research is to look how faculties implement a corporate strategy,

but this is influenced by how the strategic planning process is developed. The theory above mentions that people are more likely to support changes when they were involved in the decision making process.

To limit the size of this research there is chosen to look at only one of the implementation options more closely. Here participation is found an interesting one because it discusses the process before strategy implementation, (participation in) the strategic planning process. While the other implementation options are focused at the implementation process itself. Next to that, by not only focusing on deans but also other participants in strategy formulation and implementation provides a broader view. Another argument why it is interesting to look at participation in the strategic planning process is the following. In the introduction important changes in Dutch higher education governance are described, one of them is a stronger emphasis on more strengthened management of a higher education institution. This change in organizational structure, the strengthened position of (top) management, comes at the cost of bodies where students and staff participate (for example the university or faculty council). The first impression is that a strengthened management suggests more power, e.g. less participation needed, to achieve the goals of the higher education institution. But on the other hand participation can (still) be a useful instrument to get all the faces pointing in the right direction to achieve the goals the higher education institution management wants.

### **2.3.2. Strategic consensus**

Middle- and operating level managers who are either not well informed or unsupportive to the chosen direction are one of the reasons for unsuccessful execution of strategy. Successful execution, on the other hand, means managers acting on a common set of strategic priorities, and achieving it depends on the level of shared understanding and common commitment. This combination is called strategic consensus.

Strategic consensus is defined as agreement among top, middle, and operating-level managers on the fundamental priorities of the organization. This agreement shows itself in the actual decisions taken by managers, and its strength can be assessed along both cognitive and emotional decisions (Floyd & Wooldridge; 1992). In our case, strategic consensus is defined as the consensus the dean has with the corporate educational strategic plan.

On the cognitive side, managers who do not share a common perception of what the strategy means and who, therefore, pull in different directions create lack of consensus. On the other (emotional) side of consensus, unless managers feel some degree of commitment to a strategy, their actions are half-hearted, even when they're fully informed. In general strategic commitment depends on: (1) how the contemplated strategy fits with what managers perceive as the interest of the organization and (2) how it fits with the managers own personal self interest.

Combining the cognitive and emotional dimensions of consensus results in four general possibilities. When managers have both a common understanding and a common commitment to strategy, strong consensus exists. If managers are highly committed to something but do not share an understanding about what that 'something' is, they are well intentioned but not well informed. We call this level of consensus blind devotion. If managers share an understanding of strategy but are not committed to it, they are well informed about the strategy but unwilling to act. This condition is called informed skepticism. Finally, when neither shared understanding nor commitment is high, weak consensus exists (Floyd & Wooldridge; 1992).

While the above is a quite general explanation of strategic consensus I will now explain what this means for a higher education institution. At the top of the hierarchy of a higher education institution there is the board of directors who are responsible for the strategy of the higher education institution. Below that level are the faculties that offer the different study programs of the higher education institutions. A dean governs these faculties. In the case of a university as a higher education institution there can also be research institutes besides the faculties. A scientific director governs these research institutes. But the focus for this research lies on strategic consensus between the board of directors, as the developers of the strategic plan, and the faculties that are primarily responsible for offering the study programs. In the methodology chapter of this thesis is precisely explained how this is done. We will continue the discussion of operational theories in the next section with the discussion of the balanced scorecard and how this developed from a performance measurement system into a strategic management system.

### 2.3.3. Balanced scorecard

In 1992 Kaplan and Norton introduced the Balanced Scorecard, it was based on the premise that an exclusive reliance on financial indicators in a management system is insufficient. Financial measures are lag indicators that report on the outcomes from past actions. Exclusive reliance on financial indicators could promote behavior that sacrifices long-term value creation for short-term performance. The Balanced Scorecard approach retains measures of financial performance, the lagging outcome indicators, but supplements these with measures on the drivers, the lead indicators, of future performance (Kaplan & Norton; 2001).

The Balanced Scorecard is widely adopted by manufacturing and service companies, nonprofit organizations and government entities for several reasons. One reason that is important for the focus of this research is that previous systems that incorporated nonfinancial measurements used ad hoc collections of such measures while the Balanced Scorecard emphasizes the linkage of measurement to strategy (Kaplan & Norton; 2001).

In practice the original Balanced Scorecard was unable to link short-term objectives with the organization's long-term strategy. Therefore Kaplan and Norton (1996a) introduced four new management processes to link long-term strategic objectives with short-term activities. The first process is *translating the vision*. This process helps the organization to clarify a strategy and gain consensus. The second process, *communicating and linking*, helps the management to communicate the strategy around the organization. The strategy should also be linked to the objectives of business units. The organization has to integrate their business and financial plan. This is the *business planning* process. The fourth and last process is *feedback and learning*. This process supports the organization to monitor and evaluate performances (Kaplan & Norton, 1996a).

The four management processes that are mentioned above help transforming the strategy and vision of the organization. This vision needs to be transformed into objectives and initiatives throughout the whole organization.

The scorecard provides a framework for organizing strategic objectives into the four perspectives (Kaplan & Norton; 1996a):

1. *Financial* – the strategy for growth, profitability, and risk viewed from the perspective of the shareholder. Companies increase economic value through two basic approaches. Revenue growth and productivity. A revenue growth strategy generally has two components: on the one hand creating revenue in new markets, with new products, and new customers. On the other hand by increasing its sales to existing customers.  
A productivity strategy also generally has two components: improve the cost structure by lowering direct and indirect expenses; and utilize assets more efficiently by reducing the working and fixed capital needed to support a given level of business.
2. *Customer* – the strategy for creating value and differentiation from the perspective of the customer. The core of any business strategy is the customer-value proposition, which describes the unique mix of product, price, service, relationship, and image that a company offers. It defines how the organization differentiates itself from competitors to attract, retain, and deepen relationships with targeted customers. The value proposition is crucial because it helps an organization connect its internal processes to improved outcomes with its customers.
3. *Internal Business Processes* – the strategic priorities for various business processes that create customer and shareholder satisfaction. Once an organization has a clear picture of its customer and financial perspectives, it can determine the means by which it will achieve the differentiated value proposition. This can be done in four ways. First of all by spurring innovation, to develop new products and services and to penetrate new markets and customer segments. Secondly by increasing customer value by expanding and deepening relationships with existing customers. Thirdly, achieving operational excellence by improving in internal processes, asset utilization, resource-capacity management and other processes. Fourthly, it is important to establish effective relationships with external stakeholders.



4. *Learning and Growth* – the priorities to create a climate that supports organizational change, innovation and growth. In the learning and growth perspective is defined what the employee capabilities and skills need to be, the technology, and corporate climate that is needed to support a strategy.

Important is to mention that Kaplan & Norton (2001) assume that initiatives in the learning and growth perspective lead to changed or new internal business processes which will ultimately lead to a changed (and hopefully) better customer and/or financial perspective. I will now discuss how Kaplan & Norton tried to modify the balanced scorecard so that it can be applied to non-profit organizations. After that I will try to apply the concept of the balanced scorecard to a higher education institution.

#### *Modifying the balance scorecard*

In profit organizations the financial perspective is placed on top of the hierarchy in the Balanced Scorecard. Given that achieving financial success is not the primary objective of non-profit organizations, such as higher education institutions, many rearrange the scorecard to place customers or constituents at the top of the hierarchy. In a non-profit organization 'donors' provide the financial resources – they pay for the service – while another group receives the service. Therefore in practice at non-profit organizations both the donor perspective and the recipient perspective are placed at the top of the balanced scorecard (Kaplan & Norton; 2001). Kaplan and Norton (2001) suggest that nonprofit organizations should consider placing an over-arching objective at the top of their scorecard that represents their long-term objective. They propose that the mission of a non-profit organization should be at the highest level of the balanced scorecard. I will now try to explain how the concept of the balanced scorecard can be applied to a higher education institution. In the following section about the research method will be explained how the balanced scorecard will be used in this research.

#### *Balanced scorecard in higher education*

In appendix A the mission statement of the University of Twente is shown. When reviewing this mission statement there is mentioned that the University of Twente wants broad bachelor programs with wide possibilities for differentiation and honourtracks for excellent students. In the strategic document of the University of Twente, Instellingsplan 2005-2010, the University of Twente wants to achieve broad bachelor programs by new study programs.

In terms of the balanced scorecard the wish of the University of Twente to have broad bachelor programs can be seen as a strategic objective in the customer perspective. The means by which the university this wants to achieve is by the development of new study programs. This can be seen as the internal business perspective. Unclear in the strategic document is how the University of Twente handles the learning and growth perspective to support the development of new study programs and ultimately the enactment of the new educations. But I can imagine that the offering of new study programs will result in being able to attract more students. This will put pressures on the resources of the university, merely in terms of staff and facilities.

For example, if there are new study programs developed but without enough staffing to teach the study programs the strategy will fail. A similar example can be applied to facilities. If the university wants to start new chemical study programs and does not invest in extra laboratories, the strategy will not work.

#### *Relevance of the balance scorecard*

There are several lessons that can be learned from the balance scorecard that are relevant for this research. First of all, strategic objectives need to be translated into initiatives, complemented with measures and targets. Hereby the balance scorecard links strategy implementation to strategy realization. Secondly, in order to execute a strategic plan successfully it is important to have good strategic management processes. The first strategic management process, translating the vision (correctly) is already visible in which initiatives are developed. The other three business processes, communication, business planning and feedback are processes that need to be taken care of during the strategic period. Thirdly, it is important to have enough resources and capabilities available in order to achieve the strategic objectives. In the balance scorecard linking different dimensions shows this, for example a strategic objective in the customer perspective (e.g.



new study programs) cannot be achieved without linking it to the internal business processes perspective (e.g. good allocation of classrooms) and the learning & growth perspective (e.g. recruiting academic staff).

## 2.4. Operationalisation into research model

This section explains which parts of theory are used in order to conduct this research and how these parts of theory are operationalized. How this data is collected is explained more specific in chapter 3.

### 2.4.1. Education strategy of higher education institution

In order to grasp the concept of the education strategy of both higher education institutions for both higher education institutions a strategic document of a specific period is researched on educational objectives. A choice is made for strategic documents that cover a period that has 'ended'. For the University of Twente this strategic document is the 'Instellingsplan 2000-2005' and for Saxion Hogescholen this is the 'Strategische Visie 2004-2008'. These strategic documents will be reviewed in order to get clear what the 'corporate' education strategy of both cases was in that period.

### 2.4.2. Strategic planning process

To operationalize the strategic planning process we use an article of Goedegebuure and De Boer (1996). Hereby three things are measured. First of all, the actors that are involved. For this the following actors are discerned: administrators at central and faculty level, council-members at the central and faculty level, academics and support staff. Secondly, the manner of participation is measured. Hereby we specify: non-participation, passive participation and active participation. Thirdly, we look at the manner of participation. Here the following possibilities were included: no voice, right of information, right to be heard/provide advice, voting power and shared responsibility for the decision taking.

### 2.4.3. Strategic consensus

The concept strategic consensus consists of two parts, e.g. understanding the corporate educational strategy and commitment to the educational strategy. This is operationalized in the following way. From the strategic documents phrases are depicted that cover the 'corporate education strategy' of the higher education strategy. The respondents, in our case the deans, score these phrases two times. First of all questioning if they were aware (e.g. understanding) of the educational strategic objective. Secondly, they were asked to which extend they agree (commitment) with the educational strategic objectives.

### 2.4.4. Strategic management processes

There are three strategic management processes of Kaplan & Norton (1996) that need to be operationalized; the communication of the strategic plan, the discussion of the strategic plan in the planning&control meetings and the feedback on the strategic plan.

Regarding the communication of the strategic plan there is focused on which communication methods are used, in which frequency and if this was only at the beginning of the strategic period or also during the strategic period. The discussion of the strategic plan in the planning&control meetings is operationalized by asking a description of the planning&control meetings and by asking if the strategic plan was discussed during the planning&control meetings and if yes, in which way. Attention is paid to two things, first of all if the strategic plan is discussed at all and secondly how it is discussed. Concerning feedback on the strategic plan also two questions were raised. First if the deans of both higher education institutions reflected on the strategic initiatives they developed and how they handled a situation when a strategic initiative did not achieve the educational strategic objective. Hereby we also focus on which extend the deans reflected on their strategic initiatives. These questions were raised in face-to-face interviews with the deans of the academies of the hogeschool and faculties of the higher education institution. More about the choice and structure of the face-to-face interviews is explained in chapter 3.

**2.4.5. Organizational structure**

Concerning organizational structure we use the distinction of seven organizational structures of section 2.2.1. Hereby we primarily focus on three organizational structures, namely the functional structure, multidivisional structure and team-based structure. To measure the organizational structure questions were asked during the face-to-face interviews with the deans. According to the literature, Mintzberg (1979), higher education institutions have a functional structure. So the first question about organizational structure is if they also have a functional structure and if not, which structure they do have. Secondly there is asked if the organizational structure is an adequate one for the achievement of the educational strategic objectives.

**2.4.6. Organizational processes**

In order to get to know something about organizational processes first of all a description is asked which organizational processes are used in order to achieve the educational strategic objectives. Hereby we use the typology of organizational processes of figure 2.1, consisting of direct supervision, planning processes, performance targeting, cultural processes, internal markets and self-control. Secondly, two questions are raised if the deans of the higher education institutions also made use of output processes (like performance targeting).

**2.4.7. Availability of resources and capabilities**

To measure the availability of resources and capabilities the question is asked to the deans if they had enough resources, in terms of money and people, in order to achieve the educational strategic objectives. Hereby we focus on four specific types of resources discussed in section 2.1.2. These are people, money, information and technology.

**2.4.8. Task complexity (tension education versus research)**

In order to measure task complexity, e.g. if there is a tension present between education and research, we look at three things. First if the deans experience a tension between providing education and conducting research within their *academie* or faculty. Secondly there is asked, if present, how they cope with this tension. Thirdly, there is asked if conducting research comes at the cost of providing education.

**2.4.9. Realized education strategy at faculty level**

The realized education strategy at faculty level consists of a qualitative and a quantitative part. We will look at the strategic initiatives, measures and targets that the faculties of both higher education institutions developed in order to formulate a qualitative judgment about strategy realization. Secondly we focus on two performance indicators, study efficiency and enrollments, of the *academies* of the *hogeschool* and the faculties of the university.

As a conclusion to this chapter does figure 2.4 provide a summary of how the theoretical concepts are operationalized.

**Figure 2.4: Operationalization of theoretical concepts**

<i>Theoretical concept</i>	<i>Operationalization</i>
Corporate education strategy	<ul style="list-style-type: none"> <li>• Educational strategic objectives depicted from strategic documents.</li> </ul>
Strategic planning	<ul style="list-style-type: none"> <li>• Participants                             <ul style="list-style-type: none"> <li>○ Central administrators</li> <li>○ Faculty administrators</li> <li>○ Central council members</li> <li>○ Faculty council members</li> <li>○ Academics</li> <li>○ Support-staff</li> </ul> </li> <li>• Manner of participation</li> </ul>

	<ul style="list-style-type: none"> <li>○ Non-participation</li> <li>○ Passive participation</li> <li>○ Active participation</li> <li>• Degree of participation <ul style="list-style-type: none"> <li>○ No voice</li> <li>○ Right of information</li> <li>○ Right to be heard/provide advice</li> <li>○ Voting power</li> <li>○ Shared responsibility for the decision taking</li> </ul> </li> </ul>
Strategic consensus	<ul style="list-style-type: none"> <li>• Understanding of the educational strategic objective</li> <li>• Commitment to the educational strategic objective</li> </ul>
Strategic management processes	<p>Communication of the strategic plan</p> <ul style="list-style-type: none"> <li>• Communication methods</li> <li>• Frequency of communication</li> <li>• Period of communication</li> </ul> <p>Discussion of the strategic plan in planning&amp;control meetings</p> <ul style="list-style-type: none"> <li>• Topics of discussion, e.g. budget and/or strategic plan, in the planning&amp;control meetings</li> <li>• Intensity of strategic plan discussion</li> </ul> <p>Feedback on the strategic plan</p> <ul style="list-style-type: none"> <li>• Intensity of reflection on strategic plan</li> <li>• Coping with unsuccessful educational strategic initiatives</li> </ul>
Organizational structure	<ul style="list-style-type: none"> <li>• Type of organizational structure <ul style="list-style-type: none"> <li>○ Functional structure</li> <li>○ Multidivisional structure</li> <li>○ Holding company structure</li> <li>○ Matrix structure</li> <li>○ Transnational structure</li> <li>○ Team-based structure</li> <li>○ Project-based structure</li> </ul> </li> <li>• Appropriateness of organizational structure</li> </ul>
Organizational processes	<ul style="list-style-type: none"> <li>• Type of organizational processes <ul style="list-style-type: none"> <li>○ Direct supervision (input process)</li> <li>○ Planning processes (input process)</li> <li>○ Cultural processes (input process)</li> <li>○ Self control (input process)</li> <li>○ Internal markets (output process)</li> <li>○ Performance targeting (output process)</li> </ul> </li> </ul>
Availability of resources and capabilities	<ul style="list-style-type: none"> <li>• Availability of: <ul style="list-style-type: none"> <li>○ People</li> <li>○ Money</li> <li>○ Information</li> <li>○ Technology</li> </ul> </li> </ul>
Task complexity (tension education versus research)	<ul style="list-style-type: none"> <li>• Presence of tension between education and research</li> <li>• Coping with tension between education and research</li> <li>• Trade-off providing education and conducting research</li> </ul>
Realized education strategy at faculty level	<ul style="list-style-type: none"> <li>• Strategic initiatives, measures &amp; targets</li> <li>• Study efficiency rates</li> <li>• Enrollments</li> </ul>

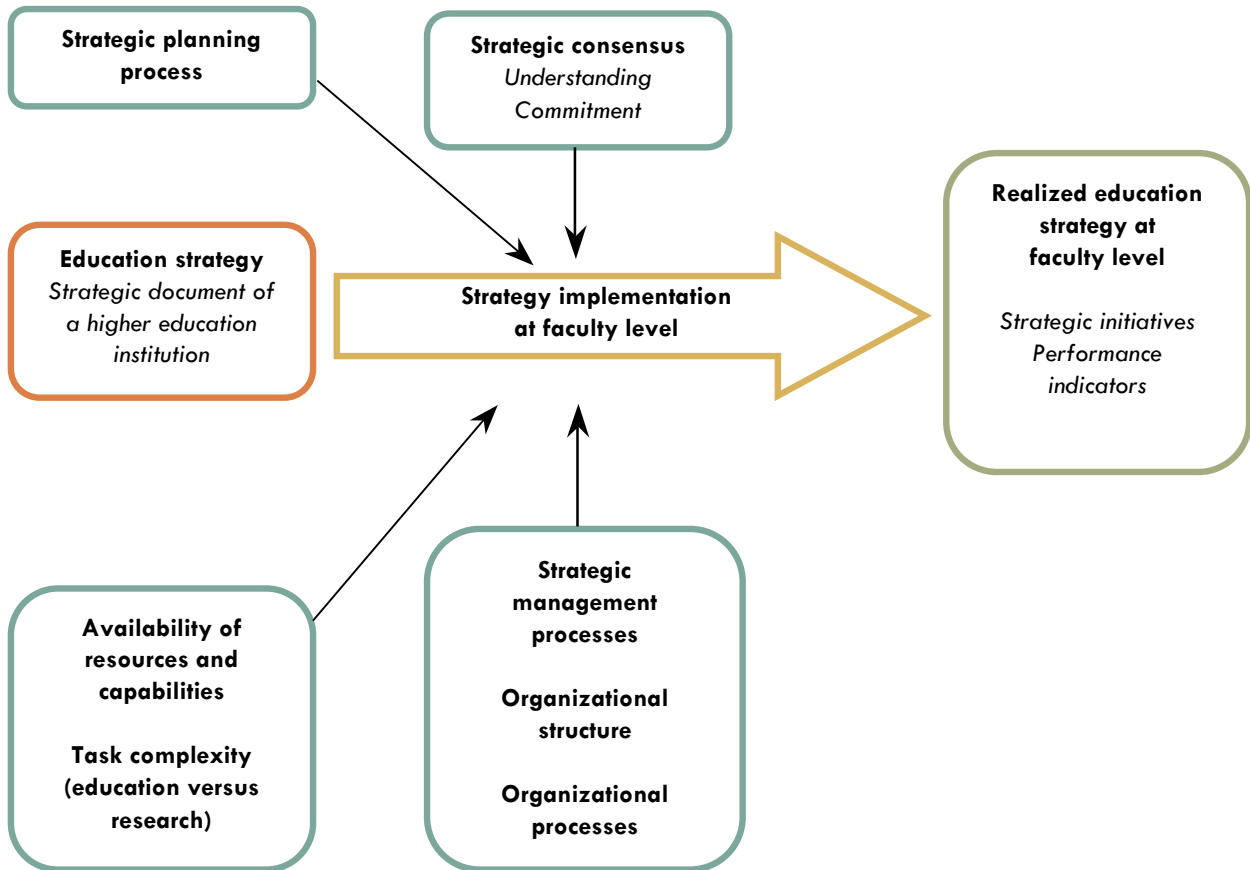
Source: Own illustration

Based on all elements that we selected we use the research model presented in section 2.5.

## 2.5. Research model

Figure 2.4 is the research model that is used in order to perform this research. This section explains the reasoning behind this research model and presents several expectations related to this research model.

Figure 2.5: Research Model



The purpose of this research is to address the question how the corporate education strategy of two higher education institutions, a *hogeschool* and a university, is implemented by the different faculties of the two higher education institutions. This is done with the help of the research model (figure 3.4) shown above. I will now try to explain this research model and explain how the different items of this research model are related to each other, starting with the strategic planning process.

Before a new strategic period begins strategy development takes place. The result of this strategic planning process is a strategic document in which the educational strategy of a higher education institution is represented. At faculty level this educational strategy is received. The faculty then thinks about how to implement this strategy in such a way that it fits within its faculty. This intended education strategy (at faculty level) is influenced by the strategic consensus that the dean has with this corporate educational strategic plan. The intended education strategy is implemented and results, over time, into a realized education strategy at faculty level. Resembled by strategic initiatives that the faculty undertook and its effects in the form of performance indicators. The strategy implementation process entails, according to Beer and Eisenstat (2000), the appropriate realignment of structure, systems, leadership behavior, human resource policies, culture, values and management processes. This research addresses the question if the organizational structure and organizational processes are appropriate realigned in order to meet the educational strategic objectives. Furthermore, it looks how the strategic management processes related to communication, planning & control and feedback are performed. Also the questions are raised if the availability of resources and

capabilities and task complexity, the assumed tension between providing education and conducting research, are of influence on the strategy implementation.

Related to this research model several expectations can be formulated. These are presented in the next section.

## 2.6. Expectations

From the research model presented in the previous section seven expectations are formulated. These will be proposed and explained in this section.

*E1: A high degree of participation, in terms of many different actors, active participation and having voting power or shared decision-making responsibility in the strategic planning process of the corporate educational strategy, leads to a high degree of educational strategy execution by the faculties of the higher education institution*

According to Rowley and Sherman (2002) people almost always support changes they themselves have proposed. When relating this to strategy execution, which is in practice strategic change, it is expected that a high degree of participation by employees in the strategic planning process leads to a high degree of educational strategy execution by the faculties of the higher education institution. A high degree of participation hereby is defined as that many different actors can participate, that the degree of participation is an active one and they have a high manner of participation (e.g. are not only having the right of information but also have voting power or a shared responsibility for the decision taken).

*E2: A high degree of strategic consensus, in terms of good understanding of and commitment to the corporate educational strategy of the dean, leads to a high degree of educational strategy execution by the faculties of the higher education institution*

When the dean of a faculty does not understand or is not committed to the education strategy at corporate level this will influence the strategy implementation. For example, bad understanding of the strategy can lead to the development of strategic initiatives that do not match with the 'corporate' education strategy. On the other hand low commitment to the corporate education strategy by the faculty can lead to situations where the faculty will not comply with the 'corporate' education strategy. There the expectation is that a high degree of strategic consensus of the dean with the corporate educational strategy leads to a high degree of educational strategy execution by the faculties of the higher education institution.

*E3a: Well-executed communication of the strategic plan, in terms of the use of many different communication methods, frequent communication and communication throughout the strategic period, leads to a high degree of educational strategy execution by the faculties of the higher education institution*

*E3b: Well-executed planning&control meetings, in terms of discussing the strategic plan in an intense way, leads to a high degree of educational strategy execution by the faculties of the higher education institution*

*E3c: Well-executed feedback on the strategic plan, in terms of intense reflection by the dean on the strategic plan and being able to solve unsuccessful strategic initiatives, leads to a high degree of educational strategy execution by the faculties of the higher education institution*

According to Kaplan and Norton (2001) the strategic management processes communication, business planning and feedback are processes that need to be taken care of during the strategic period. This leads to the expectation that good executed strategic management processes lead to a high degree of educational strategy execution by the faculties of the higher education institution.

*E4: A functional, multidivisional or team-based organizational structure of the higher education institution has a positive influence on educational strategy execution by the faculties of the higher education institution*

*E5: Cultural processes, processes of self-control and performance targeting have a positive influence on educational strategy execution by the faculties of the higher education institution*

The strategy implementation process entails the appropriate alignment of, among others, organizational structure and processes (Miles & Snow, 1978, Beer & Eisenstat, 2000). So, an organizational structure and organizational processes that suit the educational strategy of the higher education institution have a positive influence on educational strategy execution by the faculties of the higher education institution. I will try to explain this line of reasoning with an example about organizational structure. The point of view is that the organizational structure needs to be developed in such a way that it supports educational goals of the higher education institutions. For example, it is evident that good schedules are important to students and teachers. Therefore the organizational structure has been ordered in such a fashion that it is possible for higher education institutions to provide good and clear schedules to students and teachers. This line of reasoning leads to expectations E4 and E5. Hereby the expectation is that higher education institutions do not have a solely functional structure but also has a multidivisional structure and besides that makes use of teamwork. Regarding organizational processes the expectation is that besides cultural processes and self-control higher education institutions also make use of output processes, such as performance indicators.

*E6: Sufficient availability of resources and capabilities for the execution of the educational strategy, in terms of people, money, information and technology, has a positive influence on educational strategy execution by the faculties of the higher education institution*

Expectation 6 is a rather obvious one. A faculty needs sufficient resources and capabilities in order to implement the educational strategy execution. For example, when a part of the strategic plan is to develop a new study program and the current academic staff lack the capabilities to give the related courses and there are no resources available to train the current academic staff or attract new academics the strategy cannot be executed.

*E7: A high amount of task complexity, in terms of heavy competition for resources between education and research, has a negative influence on educational strategy execution by the faculties of the higher education institution*

Task complexity (e.g. competition for resources between education and research) is of influence for (educational) strategy execution. If we assume that providing education and conducting research are in competition with each other, because the same academic staff performs both tasks, this can have an impact on strategy implementation. A higher complexity of tasks causes that consensus is reached less easily regarding the development and execution of the strategy. Thus it is expected that a high amount of task complexity has a negative influence on educational strategy execution.

## 2.7. Summary

This chapter started with explaining what strategy is. Which is the direction and scope of an organization over the long term, which achieves advantage in a changing environment through its configuration of resources and competence with the aim of fulfilling stakeholder expectations (Johnson *et al.*; 2006). The chapter continued with addressing several topics that are concerned with strategy and strategic management. These were organizational structures, organizational processes, key resource areas for strategy (e.g. people, information, finance and technology), different managerial types of managing strategic change and eleven strategy implementation options. The second part of this chapter discussed strategy in higher education. It addressed, among others, organizational configuration in higher education and the changing position of the dean.

Section 2.3 started with a defined of strategy implementation. Here, Beer and Eisenstat (2000) are mentioned. They define strategy implementation as the appropriate realignment of structure, systems, leadership behavior, human resource policies, culture, values and management processes (Beer & Eisenstat, 2000). Section 2.3 presented the main part of theories that are used to construct the theoretical framework (figure 2.4) to research strategy implementation. First of all this is participation in higher education strategic management. Secondly, this is strategic consensus. Which is defined as the consensus the dean has with the corporate educational strategic plan. There is a cognitive and an emotional side to strategic consensus. The cognitive side is related to being able to understand the strategy. The emotional side of strategic consensus

is related to being committed to the strategy. Thirdly, the balanced scorecard as a strategic management system is presented. Three lessons can be learned from this theory. First of all, strategic objectives need to be translated into initiatives, complemented with measures and targets. Hereby the balance scorecard links strategy implementation to strategy realization. Secondly, in order to execute a strategic plan successfully it is important to have good strategic management processes. Thirdly, it is important to have enough resources and capabilities available in order to achieve the strategic objectives. The section of operational strategies ends by mentioning that the research will deal with the question if the organizational structure and organizational processes are appropriate to execute the (educational) strategy. Furthermore it will test the assumption that task complexity (e.g. competition for resources between education and research) is of influence for (educational) strategy execution.

Section 2.4 explained how the different parts of theory are operationalized. In section 2.5 the research model that will be used in order to conduct the research was presented. The model describes that strategy implementation as a process that starts with an intended strategy and results in a realized strategy. Several factors that are expected to influence strategy implementation are researched. These are the strategic planning process, strategic consensus, strategic management processes, organizational structure, organizational processes, availability of resources and capabilities, and task complexity (education versus research). Section 2.6 presented seven expectations that are formulated based upon this theoretical framework.

### 3. METHODOLOGY & DATA COLLECTION

Before discussing the different data collection methods it is useful to discuss some important methodological concepts that will be applied on the different data collection methods that are chosen for this research.

Babbie (2004) mentions that there are two basic modes of inquiry, induction and deduction. Induction is the logical model in which general principles are developed from specific observation. Whereas deduction is the logical model in which specific expectations of hypotheses are developed on the basis of general principles. This thesis is structured in such a way that it first discusses theories about strategic management (in higher education), as a second it draws up expectations about it and inquires if these expectations are true in practice. Therefore the inquiry that is conducted can be classified as deductive.

Next to the distinction between the two basic modes of inquiry, according to Babbie (2004) three purposes of research can be defined, namely exploration, description and explanation. This research tries to combine all the three research purposes. Primarily it tries to explore and describe what actually happens when an educational strategy is implemented within a faculty. Secondly it tries to find an explanation why the observed situation exists and what it implies. The explanation of the observed situation is sought in four concepts namely strategic consensus, strategic management processes, organizational configuration and the tension between education and research.

When conducting a study it is important to take into account the methodological concepts validity and reliability. Validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration. Though the ultimate validity of a measure can never be proved, we may agree to its relative validity on the basis of face validity, criterion validity, content validity, construct validity, internal validity, and external validity. Reliability is a matter of whether a particular technique, applied repeatedly to the same object, yields the same results each time (Babbie, 2004). For each of the data collection methods used in this research an assessment will be done in terms of these two concepts.

Another familiar distinction that is made in social research is between quantitative and qualitative data. Essentially this is the distinction between numerical and nonnumeric data. A combination of both types of data will be used in this research. Both types also have their own strengths and weaknesses, which will be discussed briefly. Quantitative data makes observations more explicit, it can make it easier to aggregate, compare and summarize data. Furthermore it makes it possible for statistical analysis. A disadvantage of quantitative data is that it has a potential loss in richness of meaning. So an advantage of qualitative data is that it can be richer in meaning than quantified data. This richness in meaning of qualitative data is immediately a big disadvantage, namely it can be ambiguous (Babbie, 2004). The different methods of data collection will also be discussed in terms of being quantitative and qualitative and what the strengths and weaknesses of these specific methods are.

A brief overview of the data collection methods used in this research is shown in figure 4.1 below. Each data collection method will be discussed in detail in section 4.2.



Figure 3.1: Methods of data collection

Variable	Data collection method
Corporate education strategy	Strategic documents <ul style="list-style-type: none"> <li>University of Twente: Instellingsplan 2000-2005 (Appendix B)</li> <li>Saxion Hogescholen: Strategische Visie 2004-2008 (Appendix C)</li> </ul>
Strategic planning process	Face to face interviews <ul style="list-style-type: none"> <li>Person who is involved in the strategic planning process</li> <li>Interview questions: Appendix E</li> </ul>
Strategic consensus	Online questionnaire <ul style="list-style-type: none"> <li>Measuring understanding and commitment with the education strategy on a 5-point Likert-scale</li> <li>Deans of the University of Twente and Saxion Hogescholen</li> </ul>
Strategic management processes	
Organizational Structure	
Organizational processes	Face to face interviews <ul style="list-style-type: none"> <li>Deans of the University of Twente and Saxion Hogescholen</li> <li>Interview questions: Appendix D</li> </ul>
Task complexity (tension education versus research)	
Availability of resources and capabilities	
Realized strategy (at faculty level)	Face to face interviews <ul style="list-style-type: none"> <li>Strategic initiatives, measures &amp; targets</li> <li>Deans of the University of Twente and Saxion Hogescholen</li> <li>Interview questions: Appendix D</li> </ul> <p>Relevant educational performance indicators of the faculties of the University of Twente and Saxion Hogescholen. Retrieved from Institutional Research (University of Twente) and annual reports (Saxion Hogescholen).</p>

Source: Own illustration

The type of research that is conducted is a literature study, and two case studies that consisted of a small survey research and a set of face-to-face interviews. Hereby two cases will be studied, a university and a hogeschool. The two cases are the University of Twente and Saxion Hogescholen. A case study is defined as an in-depth examination of a single instance of some social phenomenon (Babbie, 2004). In this case the phenomenon that is studied is the higher education institution. One of the main advantages of a case study is that it provides a good understanding of a certain phenomenon. Therefore a case study is a reliable instrument to inquire a certain phenomenon (Babbie, 2004). But problematic is the external validity. External validity implies that the research findings for a particular case also hold true for similar cases (Babbie, 2004), in other words that the research findings at the University of Twente and Saxion Hogescholen hold true for higher education institutions in general. This will be difficult because the research sample only consists of two higher education institutions. Therefore the strength of this research lies not in its external validity but in the lessons that can be learned from the in-depth analysis. In this research a particular strategic period of a higher education institution that is already closed will be researched, this will improve the reliability of the research. Because the expectation is that people can better reflect on a process that has ended. Next to that it will make the effects of the strategic effort more measurable. For the University

of Twente the period 2000-2005 will be studied and for Saxion Hogescholen this will be the period 2004-2008. A brief description of both higher education institutions is given below.

### 3.1. Case 1: University of Twente

The University of Twente is an entrepreneurial research university. It was founded in 1961 and offers education and research in areas ranging from public policy studies and applied physics to biomedical technology. Furthermore it is the only campus university in the Netherlands. The University of Twente is divided into faculties and several research institutes, according to the Bestuurs-Beheersreglement Universiteit Twente (2007). These are listed below.

#### *Faculties*

Faculteit Management en Bestuur  
 Faculteit Construerende en Technische Wetenschappen  
 Faculteit Elektrotechniek, Wiskunde en Informatica  
 Faculteit Gedragwetenschappen  
 Faculteit Technische Natuurwetenschappen

#### *Research Institutes*

Institute for Nanotechnology  
 Biomedisch Technologie Instituut  
 Centrum voor Telematica en Informatietechnologie  
 Institute of Mechanics, Processes and Control Twente  
 Institute for Governance Studies  
 Institute for Behavioural Research

The three deans of the University of Twente who are interviewed are the directors of the faculty Management en Bestuur, Construerende en Technische Wetenschappen, Elektrotechniek, Wiskunde en Informatica, and Gedragwetenschappen. We have attempted to get an interview with deans of all the faculties, but we could not get all of them.

### 3.2. Case 2: Saxion Hogescholen

Saxion Hogescholen is located in the East of the Netherlands on three campuses, in the old cities of Deventer, Enschede and Apeldoorn. Saxion Hogescholen were established through a merger of *Hogeschool Enschede* and *Hogeschool IJsselland* at the beginning of 1998. It is structured much in the same way as the University of Twente. With a division between educational 'Academies' and research institutes called 'Kenniscentra'.

#### *Academies*

Bedrijfskunde & Ondernemen  
 Bestuur & Recht  
 Gezondheidszorg  
 Mens & Arbeid  
 Mens & Maatschappij  
 Pedagogiek & Onderwijs  
 Communicatie, Informatietechnologie & Informatiemanagement  
 Financiën, Economie & Management  
 Hospitality Business  
 Life Science, Engineering & Design  
 Marketing & International Management  
 Ruimtelijke Ontwikkeling & Bouw  
 Toegepaste Kunst & Techniek

#### *Kenniscentra*

Design en Technologie  
 Hospitality Business  
 Innovatie en Ondernemerschap  
 Leefomgeving  
 Onderwijsinnovatie  
 Zorg, Welzijn, Technologie

The deans of Saxion Hogescholen who will be interviewed are the directors of the *Academie Gezondheidszorg*, *Academie Bestuur en Recht*, *Academie Life Science, Engineering & Design*, *Academie Pedagogiek & Onderwijs* and the *Academie Toegepaste Kunst & Techniek*. We have attempted to get an interview with deans of all the academies, but we could not get all of them.

### 3.3. Data collection

Below are the four data collection methods that were used to collect the required info to see what strategies were developed, how they were implemented and if they had an impact. These were strategic documents, an online questionnaire, face to face interviews and performance indicators.

#### 3.3.1. Strategic documents

In order to grasp the concept of the education strategy of both higher education institutions for both higher education institutions a strategic document of a specific period is researched on educational objectives. A choice is made for strategic documents that cover a period that has 'ended'. For the University of Twente this strategic document is the 'Instellingsplan 2000-2005' and for Saxion Hogescholen this is the 'Strategische Visie 2004-2008'. These strategic documents will be reviewed in order to get clear what the 'corporate' education strategy of both cases was in that period. The strategic documents can be seen as the embodiment of the mission and vision, stating the overall direction, of the higher education institutions in a specific period. The choice for above-mentioned documents is made because these are the official documents concerning strategy in the specific periods, therefore being both valid and reliable. The educational strategic objectives of the University of Twente and Saxion Hogescholen are shown in Appendix B and C. An example of an educational strategic objective for the University of Twente is the implementation of the bachelor/master structure. The implementation of the bachelor/master structure was also an educational strategic objective of Saxion Hogescholen, next to for example the implementation of the '*Persoonlijke Leerweg*'. The strategic documents will be used for two purposes. First of all it the strategic documents will be used to compare if the deans strategic objectives and initiatives are according to the corporate strategic plan or if they deviate from it. Secondly, it will be used the measure the concept of strategic consensus which is discussed more detailed below.

#### 3.3.2. Online questionnaire

The concept of strategic consensus will be measured through an online questionnaire. This will be done as follows. From the strategic documents phrases will be depicted that cover the 'corporate education strategy' of the higher education strategy. The respondents, in our case the deans, score these phrases two times on a 5-point Likert scale (Babbie; 2004). First of all questioning if they were aware (e.g. understanding) of the educational strategic objective (where 1=unaware and 5=aware). Secondly, they were asked to which extent they agree (commitment) with the educational strategic objectives (where 1=disagree and 5=agree). The choice for an online questionnaire is for several reasons. First of all, data is directly available for statistic analysis. Secondly it shortens the time needed for the face-to-face interview. Thirdly, the idea is to let the respondents fill in the online questionnaire prior to the face-to-face interview, in this way the respondents have already thought about the subject when taking part in the face-to-face interview. So this small online questionnaire has to be seen as a 'warm-up' for the interviewees and not a large survey. I am aware of the fact that this will have some limitations when generalizing the results.

#### 3.3.3. Face to face interviews

First of all two interviews were conducted with persons in key positions at the time of the strategy development of the higher education institution who can describe how the strategic planning process looks like. The questionnaire is shown in Appendix E, which is based on an article of Goedegebuure & De Boer (1996). For the University of Twente an interview was conducted with the Rector and President of the University of Twente from 1997 to 2005. The director of Common Affairs was interviewed to reflect on the strategic planning process of the Saxion Hogescholen for the period 2004-2008. Both persons can be considered as valid persons to reflect on the strategic planning process. More problematic is the reliability of the gathered data, because in both cases only a single person is interviewed to describe how the strategic planning process during that period went.

Secondly, the majority of the face-to-face interviews are with deans of the University of Twente and Saxion Hogescholen. Hereby it was possible to interview five deans of Saxion Hogescholen and three deans of the University of Twente, all active during the researched strategic period of the higher education institutions. Due to changes in deans at the University of Twente and because the strategic period was some time ago it

was difficult to find the 'right' deans. For example one of the interviews took place in Breda, where the former dean now has a function. Because the goal of this research is to inquire how the corporate education strategy is translated into the different faculties/*academies*, interviewing the persons responsible for the implementation (e.g. the faculty/deans) is a very valid method of data collection. Due to the fact it was not possible to interview all faculty/deans at both higher education institutions it will be difficult to make generalizations. This external validity problem is solved by interviewing deans of (very) different faculties/*academies*.

As mentioned earlier, one of the main weaknesses of qualitative research is the reliability (Babbie, 2004). With these face-to-face interviews reliability is also an inevitable weakness because only one person per *academie/faculty* was interviewed. Reliability could be increased by also interviewing the education directors. But for two reasons there is chosen not to do so. First of all, the education directors are responsible for the education in the faculty but the final responsibility for the faculty, and also for the education in the faculty, lies with the deans. The second reason is a more practical one. For a student it is a long-lasting process to get an appointment with persons that high in an organization, for example it cost one to two months between the first contact with the faculty/deans and the interview to take place. But the main strength of this research is that the most knowledgeable people are asked about their opinions, this provides much more and richer information than you can find in policy documents.

The first parts of the questionnaire are related to the strategic management processes defined by Kaplan & Norton (1996a). The questionnaire for the interviews with the deans of the University of Twente is shown in Appendix D. The questionnaire for the interviews with the deans of Saxion Hogescholen was structured in a similar way.

The first set of questions addresses how the 'corporate' education strategy of the higher education institution is translated into a realized strategy of the faculty. Paying attention to which initiatives the faculty developed in order to achieve these objectives, together with measures and targets to monitor the progress. Next to that is questioned if the faculty had the possibility and full support (e.g. resources and capabilities) to carry out their initiatives. The second part of questions addresses the topic how the faculty (director) communicated the educational strategic objectives to his employees. Attention is also paid at in which frequency this is done, if this was only in the beginning of the strategic period or if this also was a recurring event. The third set of questions addresses the business planning processes. Kaplan & Norton (1996a) mention that mostly the financial budget planning phase and the strategic planning phase are two separate processes. They state that is important that these processes are integrated. So the main question will be how the planning & control cycle of the different faculties is designed. If it only reviews the financial performance or if it also looks at how the strategy is being developed. The fourth set of questions regarding strategic management processes is related to this, it wants to research if the aimed objectives with the initiatives the faculty undertook are achieved and how the deans acted when this is not the case.

After the above part, which is related to the balance scorecard theory, questions are raised about organizational structure and processes. For example, if the organizational structure is suitable to reach the educational strategic objectives and questions about which processes are used to reach the educational strategic objectives. The questions about the structure indirectly involve the continuum of centralization versus decentralization. A respondent for example mentioned that the organizational structure is not fully suitable to reach the educational strategic objectives, because the scheduling function is too centralized.

The last part of the face-to-face interview consists of several questions about the task complexity of a higher education institution, e.g. the tension that can arise between providing education on the one hand and conducting research on the other hand. Here is asked if there exists a tension between education and research and how the deans cope with this tension, if present.

#### **3.3.4. Performance indicators**

The University of Twente and Saxion Hogescholen have certain performance indicators, merely to monitor their study efficiency and enrollments. Besides that, higher education institutions have other types of performance indicators. For example related to student satisfaction. Because the study efficiency and

enrollments performance indicators are related to the government financing of higher education, these performance indicators are considered to be of great importance for (the continued existence of) the higher education institution. Therefore we chose to examine these performance indicators to see if the implemented strategic initiatives have reached the aimed effects. I am aware of the fact that higher education institutions could have other (strategic) performance indicators but I consider these as the most important ones. They both give an impression about how many students are studying and how quickly. Especially seen in the light of what the government thinks what the goal of higher education is, to provide in the growing need for high-educated people on the labor market (Ministerie van OCW, 2009c), these can be considered as the most important. Because there is a time lag between the implementation of an initiative and the measurable effects of it this will be taken into account while analyzing. This means for the University of Twente that for the period of 2000-2005 the relevant performance indicators for the period 2002-2007 will be analyzed. For Saxion Hogescholen the performance indicators of 2006 until now will be analyzed, because the period of the strategic plan was 2004-2008.

It is important to note that for our quantitative judgment regarding strategy realization we only focus on study efficiency and enrollments. The analysis regarding strategy realization is therefore limited. I am aware of the fact that there are other performance indicators and measures, like student satisfaction, number of new study programs or employee satisfaction, available to measure strategy realization, but they are beyond the scope of this research. Furthermore we will look at the initiatives, measures and targets that the faculties of both higher education institutions developed in order to formulate a qualitative judgment about strategy realization.

## 4. RESULTS

In this chapter the results of the empirical study are presented. The results of this research are divided into four parts. Each part discusses the results of a specific research activity. Section 4.1 discusses the realized strategy in terms of strategic objectives, initiatives, measures and targets. Furthermore it discusses two (strategic) performance indicators of higher education institutions, study efficiency and enrollments. When it is clear how the corporate educational strategy is realized at the faculties of the University of Twente and the *academies* of Saxion Hogescolen we will look at several factors that influence strategy implementation. Starting with section 4.2 that discusses the strategic planning process. This section deals with the two interviews (e.g. one for each higher education institution) that were conducted about that topic. Section 4.3 discusses the results of the online questionnaire regarding strategic consensus. Section 4.4 presents a great part of the results of the face-to-face interviews with the deans of both higher education institutions. This section is divided into five subsections, namely strategic management processes, organizational structure, organizational processes, task complexity (tension education versus research) and the availability of resources and capabilities. Each section firstly discusses the results of the University of Twente and Saxion Hogescolen and secondly tries to draw some more general conclusions. After that a comparison between both higher education institutions is provided. The chapter concludes with a discussion the expectations that were formulated in chapter 2.

### 4.1. Strategy realization

This section discusses the realized strategy of both higher education institutions. First by looking at the strategic objectives, initiatives, measures and targets they have developed. Secondly by looking at enrollments and study efficiency. It has to be noted that the analysis regarding strategy realization is limited. Because there are only two performance indicators are analyzed.

#### 4.1.1. Strategic objectives, initiatives, measures & targets

This subsection presents the strategic objectives, initiatives, measures and targets that the higher education institutions developed and used. During the interviews it became clear that it was difficult sometimes for the deans to distinguish between objectives and initiatives. The full results are presented in Appendix F, which makes it easier to compare between faculties/*academies* in a single glance. This section discusses the striking issues.

#### **Universiteit Twente**

Two remarks need to be made before discussing table F.1 (Appendix F) in more detail. First of all, the dean of faculty B did not undertake any action upon the strategic plan. He became a dean of the faculty during the strategic period and was not involved in the strategic planning process and development of the strategic plan. This can be the reason that he did not undertake action upon the educational strategic plan. This is also the reason that the headings are missing in the strategic initiatives results for faculty B. Secondly, during the interview with the dean of faculty C he did not mention any objectives/initiatives on 'Nieuw aanbod postinitiële fase', 'Modernisering van onderwijs processen' and 'Kwaliteitszorg'.

The strategic initiatives that faculty A developed were in line with the strategic plan (Appendix B). This is completely different to what the dean of faculty B in the period 2004-2005 (since 2004 he was assigned as dean of the faculty). He put the strategic plan that his predecessor had developed aside and developed a plan on his own. It was unclear of this plan was in line with the UT strategy. During 2004-2005 there was no policy regarding education within the faculty. The focus was on other issues such as organizational structuring, developing the profile of the faculty, and improving the external awareness of the research that the faculty conducted. There was some attention for education, because of upcoming accreditation visits. Attention was paid to the structure and level of the study program. Study efficiency received less attention. The dean of faculty C mentioned that the initiatives he undertook were derivatives from the corporate strategic plan. When comparing the mentioned initiatives with the strategic objectives from the University of Twente during 2000-2005 (Appendix B) this also is true. But the remark needs to be made that not on every topic of the strategic plan he developed initiatives. Maybe the dean of faculty C set priorities, whereby

setting priorities can be an indication of not having enough resources available to implement the (complete) educational strategic plan.

Faculty A used two important measures, namely the enrollment figures and study efficiency rates. The dean of faculty A did not set any targets. The idea was more that there needed to be improvement in the figures. Faculty B mentioned that during that period there was insufficient steering on (study) efficiency. The dean of faculty C used targets for their enrollments. Efficiency targets he found more difficult. The above awakes the impression that the faculties did not care that much about measures and targets.

### **Saxion Hogescholen**

When comparing the initiatives (Appendix F, table F.2) with the educational strategic objectives of the Strategische Visie 2004-2008 (Appendix C) it can be concluded that these are in line with each other. But the specific initiatives differed from *academie* to *academie*. Take for instance the educational objectives regarding 'Saxion in de wereld'. *Academie* A tried to establish partnerships in China while *academie* C established contacts in England, Germany and Norway. In a way it is good that the strategic documents of higher education institutions are quite ambiguous. It allows the *academies* to undertake initiatives that best fit their domain. Next to that it, an ambiguous strategic document can get things started when a strategic issue is contested, because every *academie* can implement it in his own way. One contested educational strategic objective at Saxion Hogescholen during 2004-2008 was the 'Persoonlijke Leerweg'. This was one of the primary educational objectives of Saxion Hogescholen during that period. The idea was that every student could choose his personal (study) pathway from day one. *Academie* A, B, C and E did not agree with that. They implemented it in another way. The first two years a standard study program was provided with possibilities in the 3<sup>rd</sup> and 4<sup>th</sup> year for the students to make their own choices. Also *academie* D implemented that strategic objective in a less ideological fashion than proposed. The problem with an ambiguous strategic document is that is relatively hard to hold people accountable, because there is much room for own interpretation by the *academies*.

The (examples of) measures and targets that were used by the *academies* differed per *academie*. *Academie* A mentioned that strategic performance was measured in quite a soft way, by looking to which extend goals were realized. Next to that, *academie* A mentioned that there was not paid much attention at strategic performance during 2004-2008. Within *academie* B there were no measures and targets, the employees was provided an 'internal compass' in order to do the right things. *Academie* C made use of SMART formulated objectives in their year plans. Some examples the dean of *academie* C mentioned were the enrollments from the MBO and the amount of foreign students. *Academie* D both combined 'hard' measures (e.g. numbers) with 'soft' measures (e.g. what is the progress of a certain initiative). *Academie* E made use of measures, such as study efficiency rates. The dean of *academie* E made less use of goals because he thought they are arbitrary. His opinion was that it depended too much on the willingness of the student. In general, the *academies* used a limited number of measures and targets. The question how the *academies* used the limited number of measures remains an unanswered one. This question was not raised during the face-to-face interviews. Overall can be concluded that *Academie* A and B did not use any measures, *Academie* D is (a little bit) hiding behind institutional actions and *Academie* C and E have an active and conscious approach regarding measures and targets.

#### **4.1.2. Performance indicators (enrollments & study efficiency rates)**

The University of Twente and Saxion Hogescholen have certain performance indicators, merely to monitor their study efficiency and enrollments. Because these performance indicators are related to the government financing of higher education, these performance indicators are considered to be of great importance for (the continued existence of) the higher education institution. This section analyzes two performance indicators for both higher education institutions and looks if they achieved the formulated targets on these performance indicators.



### **Universiteit Twente**

The performance indicator data for the University of Twente related to the strategic period 2000-2005 is shown in Appendix G. The University of Twente defined five targets concerning their enrollments and study efficiency rates for the strategic period 2000-2005. These were the following:

1. 10% growth of first year students
2. 500 International master students
3. 70% Propedeuse efficiency
4. 95% Efficiency rate for the bachelor degree (new system) and doctorate degree (old system)
5. 90% Master efficiency

#### *Realized enrollments*

When looking at the number of registered students of the interviewed faculties, A, B and C you can conclude that they performed different. While faculty A and even more faculty B had a steady increase in the number of registered students, faculty C had to deal with less registered students. But in 2007 faculty C was at their 2004 level again. Overall the University of Twente had an increase in the number of registered students. Besides that, according to the figures below the University of Twente easily achieved the 10% growth of first year students in the period 2000-2005.

The amount of enrolled master students grew throughout the period. A little remark needs to be made here, about the blank boxes. These are there because during the period 2000-2005 the University of Twente was in a transition between the old doctoral structure and the new bachelor/master structure. In 2005, at the end of the strategic period faculty B and faculty A were the faculties with the most master students at the University of Twente. Faculty C also had a considerable amount of master students at that time. When looking in 2007, this is done because there is always a time lag between strategy implementation and result. Faculty C has grown considerable since 2005 with 159 master students. The strategic objective to have 500 master students at the end of the strategic period is also achieved by the University of Twente and faculty A, B and C contributed significant to that effort.

#### *Realized study efficiency rates*

The three studied faculties did not achieve the strategic objective regarding the propedeuse efficiency, which had to be at 70% at the end of the strategic period. Especially faculty C is notable, in a negative way. With a propedeuse efficiency rate after three years of 52%, at the highest. Faculty B and faculty A also had propedeuse efficiency rates of about 52% and 55% after three years. But we can come up with a couple of reasons for that. First of all, one reason for differences between the faculties can be that faculty C, by being a technical faculty, has a lower propedeuse efficiency rate than the faculty A and faculty B faculties that are social and behavioral science faculties. These studies tend to be 'less difficult' than technical studies. A second reason, for the low propedeuse efficiency rates as a whole, can be that students are not interested in achieving their propedeuse as quickly as possible but are more interested in achieving their diploma as quickly as possible. Therefore not focusing on their propedeuse, which results in not achieving the propedeuse efficiency target of the University of Twente.

When looking at the tables G.5 and G.6 (Appendix G), showing the efficiency rates for the bachelor degree (new system) and doctorate degree (old system) it can be concluded that the faculties A, B and C faculties did not achieve the strategic objective of 95%. Actually, every faculty failed to meet that extreme high objective. Regarding the data, it contains a lot of blanks. When I collected this data from the Institutional Research department of the University of Twente it was mentioned that this was because the earlier mentioned transition phase between the doctorate system and the bachelor/master system. When looking at the developed strategic initiatives from the different faculties they all focused on more study coaching and monitoring but now has to be concluded these initiatives have 'failed'. An argument why certain study efficiency targets were not achieved which was mentioned during the face-to-face interviews. The dean said that the faculty and their initiatives did not only influence it. In other words, the students themselves have to undertake some effort to achieve their degree. When they are not willing to put enough



effort in their study they eventually will not achieve their diploma. It is a combined effort, of the university providing the opportunity and from the student to take it.

The strategic objective of 95% efficiency for the master grade is also not achieved by the faculties A, B and C. But they were quite close to it, with 90% (faculty A), 84% (faculty B) and 86% (faculty C). But the amount of data is quite limited, because the as already said the bachelor/master structure was just introduced in that period.

### **Saxion Hogescholen**

A major part of the performance indicator data for Saxion Hogescholen related to the strategic period 2004-2008 is shown in Appendix H. Before discussing the performance indicators I have to mention that these are from the period 2004-2006 and not up until 2008. This is because Saxion Hogescholen has chosen to shorten their annual report resulting in a less detailed overview of performance indicators. Inquiry afterwards learned that it was rather impossible to recall the detailed data for 2007 and 2008, so the more general performance indicators from the period 2007-2008 I will discuss below.

#### *Enrolled students 2007 - 2008*

The total amount of enrolled students for 2007 was 5257, which is about the same amount as in 2006. For 2008 the amount has increased until 6005 enrollments, which is an increase of 11,7%.

#### *Percentage of students with propedeuse after 2 years – cohort 2005 (target 70%)*

The percentage of students with a propedeuse after two years is 44% for the students who begun in 2005. In comparison to the 2004 cohort this is a decrease of 5%. The percentage of students with a propedeuse after two years is unknown for the students who started in 2006 or the choice is made not to mention this in the annual report.

#### *Percentage of students that is graduated after 5 years – cohort 2002 – 2003 (target 50%)*

From the students from cohort 2002 46% is graduated after 5 years. And from the 2003 cohort 50,4% of the students is graduated after 5 years. For comparison, this overall percentage for the cohorts 2001 and 2000 was resp. 44% and 47%.

The targets of Saxion Hogescholen that were presented in the educational strategic plan are the following two:

1. No enrollment targets present in the educational strategic plan
2. 70% Propedeuse efficiency after 2 years
3. 50% Graduation efficiency after 5 years

Remarkable fact is that there were no (public available) enrollment targets defined.

#### *Realized enrollments*

The amount of enrolled students for the academie C was about the same for the years 2004-2006. Academie B had a slight increase in students in the year 2005 compared to 2004, but this declined in 2006. The amount of students for academie A increased throughout the period 2004-2006. The amount of students for academie D also increased in 2005 compared to 2004, in 2006 there were less enrolled students then in 2005 but there were still more then in 2004. This same pattern also holds true for academie E. The total number of enrollments increased during the period 2004 – 2008, from 5200-5300 students per year, to 6005 enrollments in 2008.

#### *Realized study efficiency rates*

When looking at the propedeuse efficiency rates of the Saxion Hogescholen academies it can be concluded that these are below the defined target of 70%. Only academie C and A have a higher propedeuse efficiency rate for some study programs.

The percentage of students that is graduated after five years differs per *academie*. A remark also needs to be made about the blanks in the tables. This is due to the fact that these are new developed study programs that are younger than five years. *Academie C* achieves the target of 50% graduated after five years for one study program but not for the other study program. For *academie B* this target was two times achieved but four times not. *Academie A* mostly achieved the target of 50%. Only for the 2001 cohort this was not always the case. *Academie D* achieved the target with the 1999 cohort, but not with the 2000 and 2001 cohort. *Academie E* achieved this target for one study program for the 1999 and 2000 cohort, not for the 2001 cohort. For the other study program *academie E* failed to meet the target.

For the years 2007 and 2008 no specific judgments could be made regarding the propedeuse efficiency and the percentage that is graduated after five years. The overall study efficiency rate of 44% is anyhow below the target of 70%. The average graduation percentage of Saxion Hogescholen, after five years, was below target when looking at the 2002 cohort but the 2003 cohort achieved this target.

## 4.2. Strategic planning

For both higher education institutions an interview was held with a person at a key position in the development of the corporate strategic plan. The questionnaire that was used is shown in Appendix E and is based on an article of Goedegebuure & De Boer (1996). First of all a description of the strategic planning process of both higher education institutions is given, before comparing both institutions and discussing possible implications.

### 4.2.1. University of Twente

For a description of the strategic planning process of the University of Twente regarding the (education) strategy an interview was conducted with the rector magnificus of the strategic period 2000-2005. The rector magnificus was involved in the development of the *Instellingsplan 2000-2005*. The strategic planning process for the *Instellingsplan 2000-2005* consisted of several steps. These will be discussed below.

The first step was that the executive board prepares notes together with the policy office about the new strategic plan. These notes contained the opportunities, problems, ideas and solutions that the University of Twente faced for the upcoming strategic period. Two major changes during the period 2000-2005 were the consolidation of faculties and the implementation of the bachelor/master structure.

The second step was that these notes were discussed together with the deans, directors of studies and research directors. This resulted in an ongoing process of discussion and adjustment until everyone agrees on the final notes that were developed. During this process informal meetings were held for the academic staff of the university. In these meetings the academic staff had the possibility to discuss and mention ideas about the strategic choices to be made for the upcoming strategic period of the University of Twente. These meetings had two purposes. First of all, these meetings provided useful information for the notes the executive board and policy offices were developing. Secondly during these meetings the executive board tried to get support for their ideas from the academic staff. When the discussion and adjustment phase with the deans, directors of studies and research directors is finished the final notes are transformed into a strategic plan.

The third step is to get support for the strategic plan. An important actor to get support from is the *Universiteitsraad*. This is important because the *Universiteitsraad* has the possibility to vote against the strategic plan. The *Universiteitsraad* consists of 9 employees and 9 students of the university. The rector magnificus mentioned that he also organized meetings with students to discuss about the strategic plan with the purpose to make the students enthusiastic about the strategic plan. The rector magnificus did this for example by attending lunches with students and by doing public speeches on a crate in order to convince students. The rector magnificus reasoned that when he had the support from the students and the deans, directors of studies and research directors it would be hard for the employee part of the *Universiteitsraad* to vote against the strategic plan. Next to that, support from employees is also partly generated in the informal meetings for academic staff. The idea that employees would vote against the strategic plan was a

realistic thought, because the changes in the number of faculties and courses caused commotion under the employees.

About the strategic planning process for the *Instellingsplan 2000-2005* at the University of Twente the following can be concluded. The executive board and policy office together with the deans, directors of studies and research directors develop the strategic plan. So there is active participation from central administrators and faculty administrators, where the central administrators have the responsibility for the taken decisions and the faculty administrators function as sparring partner for discussion and advise. Through the informal meetings academics and students have passive participation in the strategic planning process, they have the possibility to attend the meetings to be heard and provide advice. This can be seen as consensus building and creating support for the strategic plan. The *Universiteitsraad*, which represents the students and the employees of the university, has the possibility to vote against the strategic plan. The supervisory board also has this voting power, but will not use this quickly. The rector magnificus mentioned they would only do so when the strategic plan contains questionable ideas. Interesting to mention is that the introduction of the bachelor/master structure was a discussion point between executive board and deans, directors of studies and research directors. In a sense that a change to the bachelor/master structure meant a lot of work for the faculties, for example the changing the study program, adjusting the courses, offering an English master track.

#### 4.2.2. Saxion Hogescholen

The interview about the strategic planning process regarding the (education) strategy of the higher education institution was conducted with the director of General and Administrative Affairs of Saxion Hogescholen. The strategic planning process for the *Strategische Visie 2004-2008* consisted of several steps, which will be discussed in more detail now.

The starting point was a preparatory phase with the Board of Directors together with four or five arbitrary chosen deans of the Saxion Academies and directors of Saxion Diensten. Together they brainstormed and discussed about the strategic plan for the upcoming years resulting in a concept of the strategic plan. This concept was then provided to all the deans of the Saxion Academies and directors of Saxion Diensten. The deans and directors then had the right to provide advice to the Board of Directors about the concept of the strategic plan. After that, the Board of Directors makes, if found necessary, adjustments to the strategic plan and then comes up with a final strategic plan. This final strategic plan will be presented to the *Gemeenschappelijke Medezeggenschapsraad* consisting of 12 elected students and 12 elected employees. The *Gemeenschappelijke Medezeggenschapsraad* has a voting right about the strategic plan. Next to that, the final strategic plan is presented to the supervisory board, which also has to agree with it. After both parties, the *Gemeenschappelijke Medezeggenschapsraad* and the supervisory board, agree with the strategic plan than it is set.

About the strategic planning process for the *Strategische Visie 2004-2008* at Saxion Hogescholen the following can be concluded. The concept strategic plan was developed in a small group of directors and afterwards all the directors of Saxion Academies and Saxion Diensten were consulted to give advice on it for a final strategic plan. Interesting is what the role of the teachers in the strategic planning process was. In two ways they had an indirect influence through the *Gemeenschappelijke Medezeggenschapsraad* and is represented by the dean, but teachers had no real direct influence. The *Gemeenschappelijke Medezeggenschapsraad* and the supervisory board had a considerable amount of power in the strategic planning process. Both parties have the possibility to vote against the strategic plan that will send the Board of Directors back to the preparatory phase. But the director of General and Administrative Affairs mentioned that the strategic planning process for the *Strategische Visie 2004-2008* went fluently without any tensions between for instance Board of Directors and directors of the Saxion Academies and Saxion Diensten.

Another interesting point is the development over time in the strategic planning process of Saxion Hogescholen. The director mentioned that the Board of Directors solely did the development of the strategic plan for the period 2002-2004 without consulting directors of Saxion Academies and Saxion Diensten. The

strategic plan for the period 2004-2008 was developed more together with the directors of the Saxion Academies and Saxion Diensten, as mentioned above. For the development of the strategic plan of the period 2008-2012 a more stakeholder approach was used. The director mentioned for example the active participation of companies (potential employers) and employees (e.g. teachers). So through time the strategic planning process has developed from a rather top-down approach to a more bottom-up approach. And from a small group of participants in the process to a larger and more diverse group of participants in the strategic planning process. The question why this change was made remained unanswered.

When comparing the strategic planning process of the University of Twente with Saxion Hogescholen these look quite similar at first glance. But there is one important difference. At the University of Twente there was much more emphasis on convincing stakeholders (especially the students) of the strategic direction where the board of directors wanted to go. Compared to the University of Twente this was less present at Saxion Hogescholen. So to say, at the University of Twente there was a careful process going on to get students and staff on board of the strategic plan whereas at Saxion Hogescholen students and staff hardly had any influence on the strategic choices that were made. In other words, at the University of Twente the strategic planning process was more inclusive and more oriented at consensus building compared to Saxion Hogescholen. Therefore you would expect that the corporate educational strategic plan is more directly translated and executed at the faculty level of the University of Twente compared to Saxion Hogescholen.

It can be concluded that the institutional governance structures achieved consensus about the strategic plan, but you have to question if the employees are really committed to this strategic plan. Particularly those employees that were not directly part of the strategic planning process. It is imaginable that the employees that did not participate in the strategic planning process do not care about the strategic plan, reasoning in the same way as (Rowley & Sherman; 2002). So, when you look at the strategic planning process at the University of Twente for the period 2000-2005 and Saxion Hogescholen for the period 2004-2008 some improvements can be made. The strategic planning process should directly involve all of the stakeholders, to get more commitment for the strategic plan. It looks like Saxion Hogescholen has drawn the same conclusion and used a more stakeholder approach for the strategic planning process for 2008-2012.

### 4.3. Strategic consensus

The concept of strategic consensus was measured with an online questionnaire. The deans had to score their educational strategic objectives on a five point Likert-scale (see Appendixes B and C) on two dimensions. First of all if they were aware of the educational strategic objective and secondly if they did agree upon the educational strategic objective. For the University of Twente there were 26 educational strategic objectives the deans had to score. The deans of Saxion Hogescholen had to score 14 educational strategic objectives. The response rate of this conducted online questionnaire was 100%. For both higher education institutions a table is presented which shows the average awareness and agreement of/with the educational strategic objectives. After that, the interesting strategic educational objectives (e.g. those objectives that the deans were not aware of, did not agree upon or both) will be discussed for each faculty/academie. Finally, a comparison and some general conclusions about strategic consensus will be made.

### 4.3.1. University of Twente

**Figure 4.1: Strategic consensus with the strategic plan of 2000 – 2005 at the University of Twente**

Faculty	Average awareness of educational strategic objectives (1=unaware, 5=aware)	Standard deviation of awareness of educational strategic objectives	Average agreement on educational strategic objectives (1=disagree, 5=agree)	Standard deviation of agreement on educational strategic objectives
Faculty A	4,08	1,72	4,04	1,28
Faculty B	4,58	0,81	4,50	0,86
Faculty C	4,27	1,34	4,12	0,99
Total Average	4,31		4,22	

Note: Average scores based on 26 educational strategic objectives.

Source: Conducted online questionnaire (2009)

From the above table, which shows the average scores on 26 educational strategic objectives, the first thing that can be concluded is that the deans were most of the time aware of the educational strategic objectives and did agree upon them. They score high on strategic consensus. Furthermore, based on the strategic consensus scores, faculty B is expected to have the best implementation and faculty C is expected to have the least implementation. Given the fact that the above figures are an average, it is interesting to look more closely which educational strategic the deans were not aware of and did not agree upon.

The dean of faculty A was not aware of the educational strategic objective to offer a broad combination of major and minors together with national and international colleges and universities. Besides that he was not aware of the objective to develop some generic minor programs into independent major study programs. But despite that he agreed upon both objectives. An objective he was fully aware of (e.g. scored a 5) but did not agree upon (e.g. scored a 2) was the development of study programs together with the Vrije Universiteit. Another objective the dean was aware of but did not agree upon was the further intensification of the cooperation with Hbo-instellingen, to develop decentralized propedeuses. Four objectives, mostly regarding performance indicators, the dean was not aware of and did not agree upon. These objectives were; 50% of the students should go abroad to follow courses or to graduate, the increase of foreign students from 200 to 500, the increase in first year enrollments of 10% and the increase in the amount of international master students. When looking at the initiatives of faculty A it becomes clear that there were not any to increase joint programs together with the Vrije Universiteit or a further intensification with Hbo-instellingen. Regarding the performance indicators the dean of faculty A did focus on improving the enrollments and attracting more master students. But no specific attention was paid to the objective that 50% of the students should go abroad.

The dean of faculty B was not unaware or did not disagree with any educational strategic objective, but he scored some objectives with a 3 (e.g. meaning not unaware/not aware and not disagreeing/not agreeing). This can be because he started with his function as a dean in 2004, relatively at the end of the strategic period.

The dean of faculty C was unaware and disagreed with the objective to institutionalize a flexible propedeuse. When looking at the undertaken initiatives this particular objective was not mentioned. Furthermore the dean was unaware with the objective concerning the further development of the part-time study program, he did not disagree or agree with this objective. No initiatives were undertaken upon this objective, according to the interview with the dean. He also was not aware of the objective about the further institutionalization of the Student Union, but he did agree upon this objective. The unawareness about this

objective sounds logical, because it is not a direct concern of the faculty. The objective of a propeduse efficiency rate of 70% was an objective the dean did disagree upon. This matches with the interview results where the dean mentioned that study efficiency rates were a difficult thing for him. His opinion is that students needed to work a bit harder.

#### 4.3.2. Saxion Hogescholen

**Figure 4.2: Strategic consensus with the strategic plan of 2004 – 2008 at Saxion Hogescholen.**

<i>Academie</i>	<i>Average awareness of educational strategic objectives (1=unaware, 5=aware)</i>	<i>Standard deviation of awareness of educational strategic objectives</i>	<i>Average agreement on educational strategic objectives (1=disagree, 5=agree)</i>	<i>Standard deviation of agreement on educational strategic objectives</i>
<i>Academie A</i>	5,00	0,00	4,38	1,19
<i>Academie B</i>	4,31	0,75	3,15	1,34
<i>Academie C</i>	4,54	0,78	4,38	1,12
<i>Academie D</i>	5,00	0,00	4,08	1,26
<i>Academie E</i>	4,92	0,28	4,69	0,63
<i>Total Average</i>	4,75		4,14	

Note: Average scores based on 14 educational strategic objectives.

Source: Conducted online questionnaire (2009)

Looking at the figures above, which shows the average of 14 educational strategic objectives, it can be concluded that the deans most of the time were aware of the educational strategic objectives of Saxion Hogescholen. They score very high on awareness of the educational strategic objectives. The agreement with these objectives shows a slightly different picture, where the dean of *academie B*, with an average score of 3,15, is the biggest dissonant. The deans score also quite high on agreement with educational strategic objectives, except for the dean of *academie B*. We will now look more closely to each individual *academie*.

The dean of *academie A* only disagreed with the educational strategic objective that education needs to be standardized where possible. Given the fact that technical study programs tend to be specific it is understandable that the dean of *academie A* disagrees with that. Furthermore, the dean of *academie A* was aware of all the objectives and did agree upon them.

The dean of *academie B* was aware of the educational strategic objectives but disagreed (e.g. scoring a 1 or 2) with several educational strategic objectives. The first objective is the development of new study programs on the boarders of existing study domains. Which can result in new study programs as well as individual choices of students. When looking at the undertaken initiatives at faculty B you can see that he did not developed the 'Persoonlijke leerweg' in the first two years, e.g. limiting the individual choices of students. This was according the disagreement with this strategic objective. Individual choices could be made, but later on in the study program, during the 3<sup>rd</sup> and 4<sup>th</sup> year. The second objective he did disagree upon was the (re-) structuring of the technical study programs. It is quite logical that he disagreed with this objective, because he was a dean of a not-technical *academie*. A third objective he did disagree upon was the idea that education needs to be standardized where possible. Despite the fact the dean was against this he developed a first year whereby 50% is common education. But on the other hand during the face-to-face interview he said that he was against broad education. The fourth objective he did disagree upon was the development of European network of higher education instutions who can exchange students and teachers

and conduct research together. The fifth objective the dean of faculty B did disagree upon was that Saxion Hogescholen needed to offer the possibility for Dutch and German students to study together, tightening the bonds with German higher education institutions. Regarding these two objectives the dean of *academie B* undertook no initiatives during that period. In other words, he did not implement the corporate educational strategy.

The dean of *academie C* disagreed with two educational strategic objectives. These objectives were that education, if possible, needs to be standardized and broad and when it is needed education needs to be specialized and small. It is quite strange that he disagreed with both objectives, this because the one objective is the opposite of the other. So he disagreed with both types of education. When looking at the undertaken initiatives of *academie C*, you will see that he did not develop initiatives on both strategic educational objectives.

The dean of *academie D* disagreed with the strategic objective regarding the implementation of the 'Persoonlijke Leerweg'. This also became clear during the face-to-face interview where the dean mentioned that he implemented the 'Persoonlijke Leerweg' in a less ideological fashion that proposed. Another objective the dean did disagree upon was the offering of standardized and broad education. Given the type of *academie*, offering only one study program, the disagreement with this objective becomes understandable.

When looking at the survey results for the dean of *academie E* it can be concluded he was aware of and did not disagree with any educational strategic objectives. Only the extent to which he was aware of and agreed differed a little. In other words, he did implement the corporate educational strategy.

The first conclusion that can be drawn is that most deans agree in general with the strategy of their higher education institution but have a diverging opinion on some issues. This brings us to the question what the deans do when they do not agree with the strategy of the higher education institution. The answer to this question is a bit mixed. Sometimes they comply with the strategy and develop initiatives for that. But these initiatives can deviate a little from the original idea. An example of this is the 'Persoonlijke Leerweg', where students are offered study choices by most of the *academies*. These choices were offered by the *academies*, but not from day one like the strategic plan says. But later on in the study program students could make choices regarding their study program. Sometimes a dean did not develop any initiatives for a certain educational strategic objective. An example of this is the dean of Faculty A, who did not develop study programs together with the Vrije Universiteit.

## 4.4. Strategy implementation

This section presents a great part of the results of the eight face-to-face interviews that were conducted with deans of the University of Twente (three interviews) and Saxion Hogescholen (five interviews). It is divided in four sections namely, strategic management processes, organizational structure and organizational processes, task complexity (tension education versus research) and the availability of resources and capabilities. The results are presented in clear tables, each table addressing a specific strategic management process of one of the higher education institution. In each table the answers of the dean related to a specific topic are presented. Underneath each table a summary of the findings will be made together with some conclusions.

### 4.4.1. Strategic management processes

This section deals with the three strategic management processes; the communication of the strategic plan, the discussion of the strategic plan in the planning&control meetings and the feedback on the strategic plan.



**Universiteit Twente**

**Figure 4.3: Communication of the strategic plan within the faculties during the strategic period 2000 – 2005 at the University of Twente.**

<i>Faculty A</i>	<p>Broad discussions with all employees, this was also because of the relocation to another building due to the fire. This was done once per 2-3 weeks. Next to that plenary sessions were held to discuss the strategic intentions. Newsletters were also used to communicate strategic issues.</p> <p>Implementation is never translated to 'and now the faculty is going to do this and that, because we took this decision'. It depended very much on the situation of the faculty at that moment. The dean had his objectives of the faculty in line with those of the Board of Directors, but the dean still had his autonomy.</p> <p>Informal moments were also used to reflect to the strategy. Examples of this are the opening of the academic year, the year-end closing and the beginning of the new year.</p>
<i>Faculty B</i>	<p>Twice or three times a year a 'strategy day' is organized. Professors, study program directors, the participation council, supportive staff and students participate in this. Sometimes, prior to final choice, a meeting for interested was organized. But most of the time I ask the department chairs to discuss the concepts in their departments.</p> <p>The dean has the study program directors and department chairs at my desk every trimester. At such meetings the strategy is a point of discussion.</p> <p>The new-year speech, the opening of the academic year, the inaugurations of new professors is also used to communicate the strategy. Next to that, is there an extensive newsletter every month.</p>
<i>Faculty C</i>	<p>Every year the dean organized a meeting outside the campus to discuss how things were going and where we wanted to go. Besides that, in that period, there were all kinds of organized dinners for professors, this because we were building a faculty. So all these professors had the possibility to meet and learn to know each other.</p> <p>Every four to six weeks there was a meeting with the chamber of professors (in Dutch: kamer van hoogleraren) to discuss the current affairs and what we wanted to do in the future. Besides that, every six weeks there was a meeting with the faculty council. At those meetings all the strategic choices were discussed. Besides that, the dean walked around a lot to be in contact with the individual chairs.</p> <p>The newsletter, at that time, was an underdeveloped instrument. I preferred oral communication.</p>

**Source: Conducted face to face interviews (2009)**

The communication of the strategic plan was good at the three faculties. Now the obvious question is why the communication was good, this was because of three reasons. First of all, the strategic plan was topic of discussion on an ongoing basis with key staff members, throughout the year. Secondly, there was attention for the strategic plan at informal meetings. Thirdly, two of the three faculties organized a yearly strategy day(s) or meeting outside the campus to discuss the strategic plan.



**Figure 4.4: Discussion of the strategic plan during the Planning & Control meetings at the University of Twente during 2000 – 2005.**

<i>Faculty A</i>	<p>The planning &amp; control meetings were quite informal. In a sense that the outline of the strategy was a topic of discussion during these meetings. But it was not like 'this were the objectives of the corporate strategic plan and fits this with what you are doing at the moment'. That relationship between board of directors and dean was absolutely not present. In my opinion this was a pleasant approach. The board of directors what came afterwards was far stricter.</p>
<i>Faculty B</i>	<p>During the planning &amp; control meetings the strategic objectives were not systematically addressed, it was done in a more eclectic way. The board of directors was particularly focused on enrollment figures.</p> <p>The relationship between the board of directors and deans about the strategic plan and the realisation of it was one were it often went about enrollment figures and study efficiency rates. While on the other hand a meeting between the board of directors and all the deans never took place. To look what kind of ambitions these faculties together have.</p> <p>In my opinion there was a relatively soft administrative culture.</p>
<i>Faculty C</i>	<p>In planning &amp; control meetings both financial results and strategic objectives were discussed. The planning &amp; control meetings were strongly inspired on plans with a financial consequence. Next to the planning &amp; control meetings there were also the spring and autumn meetings.</p>

**Source: Conducted face to face interviews (2009)**

The planning & control meetings delivered some mixed results. But in general it can be concluded that the strategic plan was not discussed in a systematic way during the planning & control meetings. There were no serious indicator-driven discussions. Money was the most important. If there was any discussion about the strategy at all, this was more on an ad-hoc basis and in an informal way. According to a dean, enrollment figures and efficiency rates were discussed during the planning & control meetings. But this founds the statement that money was the most important, because high enrollment and efficiency figures lead (e.g. direct and indirect) to more money.

**Figure 4.5: Feedback on (the progress of) the strategic plan during 2000 – 2005 at the University of Twente.**

<i>Faculty A</i>	<p>During the board meetings the progress of the projects was discussed. The faculty board consisted of a education director bachelor, education director master, a director operations and a student member. These meetings took place once per 4-6 weeks. Besides that, there were also performance appraisals with the professors.</p> <p>Some initiatives were successful, others were less successful. There was some resistance against the implementation of certain strategic initiatives. Take for example the reduction of courses, from 400 to 75 courses within the faculty. There was a lot of resistance regarding this strategic initiative. This was solved by linking the funding of the departments to the number of students that were there. In this way the dean managed to reduce to number of (small) courses.</p>
<i>Faculty B</i>	<p>You can take an initiative, but in order to carry it out succesful you need to stay up to date. When something was wrong, the dean organized a meeting to discover what went wrong to stir things up.</p>
<i>Faculty C</i>	<p>Because of the short period the dean was assigned he did not have much chance to look back. But we did look back, for instance at student recruitment. There was a change made by the board of directors regarding student recruitment that caused problems for the faculty.</p>

Source: Conducted face to face interviews (2009)

Regarding the feedback on the strategic plan, e.g. checking if initiatives deliver the promised results, no real general conclusion can be drawn. Faculty A discussed the progress on the strategic plan on a regular basis, while faculty B did this more on an ad-hoc basis. The dean of faculty C was only there for a small amount of time and there did not had much opportunity to look back but had the intention to do so.

**Saxion Hogescholen**

**Figure 4.6: Communication of the strategic plan within the academies during the strategic period 2004 – 2008 at Saxion Hogescholen.**

Academie A	At the beginning of the strategic period a business plan for the <i>academie</i> (based upon the strategic plan) is developed and presented, there people also could mention where they agree/disagree on. During the strategic period every year there was an update on that business plan, to fine-tune.
Academie B	No communication of the strategic plan, only if it started to mean something for the employees. Made use of presentations and deliberation with colleagues.  Once a year throughout the whole strategic period, during the discussion of the budget, there is an explanation on the performed policy.
Academie C	Use of presentations, team meetings, lunch discussions. Also made use of the digital possibilities, such as intranet and e-mail. Every year the strategic objectives were mentioned with the presentation of the year plan for the <i>academie</i> .
Academie D	During meetings topics of the strategic plan were addressed, some topics were discussed in more detail during specific meetings. The Board of Directors spreads the corporate strategic plan. Based upon that the year plans were written. The strategy was addressed in the monthly newsletter.  Next to that the dean organized a couple of sessions to explain the year plan, employees can subscribe to these meetings. These are held once a year. Also informal meetings are used to address strategic objectives, such as the year-end closing and the beginning of the new (academic) year.
Academie E	We are a network organization. This means that a lot of things are told in the 'corridors' on an informal basis. We did not communicate in the sense of we have a strategic vision, academie vision and then implementation, but we did this in another way. We looked at what were the core elements of the <i>academie</i> policy and how does this fit with the Strategische Visie 2004-2008. When it fitted we continued to execute this as good as possible. As an <i>academie</i> we already had implemented many elements now addressed by the Strategische Visie 2004-2008, so it was not necessary to say we need to go in this or that direction.  Communication is done by seminars with all employees and through so called 'leerplancommissies'. Strategic objectives are addressed per issue, not integral. Once a year there is two-day external discussion about strategic objectives. Next to that it is taken into account in the meetings.  The discussion about the strategic vision is not present within our <i>academie</i> , but implicitly the content is present.

Source: Conducted face to face interviews (2009)

The communication of the strategic plan by the *academies* is done in a different way by each *academie*. But a distinction can be made between the *academies* A and B versus *academies* C, D and E. *Academie* A and B did not communicate the strategic plan that well. Actually *academie* B chose only to mention the strategic plan on a 'need to know' basis. *Academie* C, D and E communicated the strategic plan in a more sophisticated and better way. Using presentations, meetings and informal occasions.

**Figure 4.7: Discussion of the strategic plan during the Planning & Control meetings at Saxion Hogescholen during 2004 – 2008.**

<i>Academie A</i>	During that period the primary focus of the planning & control meeting was on the financial performance. The strategic performance came as a second. In my opinion this was right, concerning the financial position of Saxion Hogescholen at that moment.
<i>Academie B</i>	The focus was primary on the financial performance. After that, the strategy was a point of discussion. The strategy was also discussed in a more implicit way, in short conversations.
<i>Academie C</i>	Both financial results and the progress concerning the strategy were discussed in the planning & control meetings. This was on a trimester base, both within the <i>Academie</i> and towards the Board of Directors.
<i>Academie D</i>	Both strategy and finances discussed. Most important strategic topics are pecked. Particularly the objectives that were not yet reached. Rather qualitative. But also measurable things such as the number of enrollments, study efficiency rates and the number of graduations.
<i>Academie E</i>	Three times a year a Planning & Control meeting took place, next to that budget and year report meeting. Both financial results and the progress concerning the strategy were discussed in those meetings. The discussion went like 'are things going well, think of the study efficiency rates, think of that, etc.'

Source: Conducted face to face interviews (2009)

Regarding the planning & control meetings every *academie* mentioned that both the strategic objectives and the financial results were discussed. But one remark needs to be made, *academie A* and *B* mentioned that the financial results came first, and the strategy second. So, it can be concluded that the strategic plan was not a guiding principle but more a supportive tool.

**Figure 4.8: Feedback on (the progress of) the strategic plan during 2004– 2008 at Saxion Hogescholen.**

<i>Academie A</i>	<p>We looked back once a year at how things were going and where to adjust. Take for instance the plan of the development of an international network. After a year we asked ourselves the question, do we have contact with high schools/universities already? If yes, how many contacts? If no, why not? It was not necessarily the case how much do we have, but more on how is it developing. Is it growing?</p> <p>Adjusting or putting more effort in 'failed' initiatives, depended on the specific case. The development of electronic learning, as an example, is something we 'parked' at that moment.</p>
<i>Academie B</i>	<p>We reflected on our yearly plans. These year plans were divided in projects that had a project leader. Every 4 to 6 weeks the project leaders had to answer to the management team of the <i>Academie</i> on their progress made on these projects.</p> <p>Some initiatives were discontinued, because there was a lack of support for it. Other initiatives were innovated on an ongoing basis, such as study coaching. It depended on the specific case how we responded to adjusting the developed initiatives.</p>
<i>Academie C</i>	<p>The 'Persoonlijke leerweg' and internationalization are much debated within the <i>Academie</i>. On a corporate level this was done less. Take for example the letter of intent about internationalization that is formulated towards the government. There was little steering on this from corporate level. Within my <i>Academie</i> we were more in control.</p> <p>When objectives were not met with the developed initiatives an improvement plan was developed.</p>
<i>Academie D</i>	<p>Looking back is something that we have done. It is also part of the Plan-Do-Check-Act cycle. Of course you try to analyze why something goes wrong. How easy this analysis is differs per problem. Take for example the dropout problem. We analyzed the numerical data, organized talk sessions with students and an exit conversation with students that decided to quit the study program.</p>
<i>Academie E</i>	<p>By means of management reports, on a trimester basis, towards the Boards of Directors and towards the <i>Academie</i>. You cannot say that you will abandon an initiative, but you intensify your attention to that problem. An initiative always develops throughout time.</p>

Source: Conducted face to face interviews (2009)

Every *academie* reflected if the strategic initiatives that they undertook resulted in the desired outcomes. But the frequency in which they did differed between each *academie*. For *academie C* and *D* it not became clear with which frequency they looked back at their developed initiatives. But they did mention that when something did not work as supposed they developed analyzed the situation and developed an improvement plan. *Academie E* reflected at their strategic initiatives on a trimester basis. How they reacted to 'failed' initiatives different per initiative. Sometimes they chose to abandon the strategic initiative but sometimes they would adjust or intensify the attention the strategic initiative. In general it can be said, that feedback on the progress of the strategic plan was good.

#### 4.4.2. Organizational structure & organizational processes

Strategy follows structure, according to Mintzberg (1981). This subsection deals with the organizational configuration of the University of Twente and Saxion Hogescholen. It presents the results to the questions if the organizational structure was adequate to achieve the educational strategic objectives and which organizational processes the higher education institutions used to achieve their objectives.

**Universiteit Twente****Figure 4.9: Organizational structure of the University of Twente during the strategic period 2000 – 2005.**

<i>Faculty A</i>	<p>The organizational structure of the University of Twente was a combination of a functional structure at the corporate level and at the faculty level. In that time there was a discussion about what needed to be organized centralized and decentralized. The structure was not totally functional, but it was within the faculty.</p> <p>It also had characteristics of a divisional structure, where the faculties were product/market combinations. At the finance department there was more of a relation between the centralized and decentralized department.</p> <p>The organizational structure was adequate to achieve the strategic objectives.</p>
<i>Faculty B</i>	<p>The organizational structure is a pure functional structure, on corporate level as well as on faculty level. The dean could not judge if the structure is adequate to achieve the strategic objectives. This because he did not know other structures.</p>
<i>Faculty C</i>	<p>The University of Twente has a functional structure, with product/market combinations towards the external environment. But functions are both fulfilled centralized as well as decentralized. Take for example the financial controller. There is one at corporate level, but also one at faculty level.</p>

Source: Conducted face to face interviews (2009)

The three faculties all mentioned that the organizational structure of the University of Twente was a functional one. Where the functions both were performed at corporate and faculty level. But that looks more like a divisional structure. This was something that faculty A also mentioned. All the faculties agreed that it was an adequate structure to achieve the educational strategic objectives. Thus, the structure supported the strategy according to the deans of faculty A, B and C.

**Figure 4.10: Organizational processes used within the faculties of the University of Twente during the strategic period 2000 – 2005.**

<p><i>Faculty A</i></p>	<p>Input processes are good, but you need to have a lot of information about the output. My statement is that when you develop a program you have to think carefully about what the output needs to be. Next to that you have to guard that everyone is focused on the final result.</p> <p>We made use of output processes. To give some examples, when a study program attracted more students they received more resources. We made use of evaluation to assure quality. Departments were confronted with their results every year. In such conversations we talked about financial issues, but also about how many students successfully followed the course and how the course was developed. We also paid attention at the division of the workload between the department members. Formally, a review of every department was done once a year. During the period there were informal meetings.</p> <p>We also developed a model to calculate the number of employees in a department, if that was enough or perhaps too much.</p>
<p><i>Faculty B</i></p>	<p>Every year we go for a lunch with all the members of each department, so the dean lunches about twenty times a year. I ask what the department is doing and I also explain what I am doing. Next to that, I organize a party once a while, you create a good atmosphere. Another example. In the winter there is a soup stand outside, to give the employees a free cup of soup.</p> <p>We do not make any use of output processes. Study efficiency rates were discussed with educational directors. The dean told them that they need to go up but the dean was not pushing them systematically to give me new efficiency rates.</p> <p>The same holds true for research output. It is discussed every year. The dean sees the employees working hard every day, they do good work and when the dean does not get any clue they are not working hard then he is not going to hurry them. We do not discuss the number of publications etcetera. You have to be prudent in using the whip in this type of organization.</p>
<p><i>Faculty C</i></p>	<p>The dean truly believes that the academic staff can self-regulate themselves within their tasks. Here a distinction has to be made between the academic staff and the support staff. But every year there were performance appraisals where agreements were made with professors. In such meetings you look how things went that year and you set some objectives for the next year.</p> <p>The number of publications was discussed in such meetings.</p> <p>Visitation visits were also a great instrument to keep everyone on track. As they say, 'strange eyes force a little bit more'.</p> <p>The judgment about the education was primarily one between the educational director and the responsible professor.</p>

Source: Conducted face to face interviews (2009)

Regarding the organizational processes, faculty A differed from faculty B and C. Faculty A explained that they made use of performance targeting, which is an output process. Faculty B and C did not use these kind of processes. It is questionable if only creating a good atmosphere, as an input process (like the dean of faculty B did), contributes to the implementation and execution of the strategic plan. Faculty C mentioned that academic staff was capable of self-regulating themselves within their tasks. Implicitly saying they did not need output processes. Thus, for faculty C the same question can be raised.

**Saxion Hogescholen****Figure 4.11: Organizational structure of Saxion Hogescholen during the strategic period 2004 – 2008.**

Academie A	<p>We have made the choice to develop the educational units as product/market combinations. Whereas the general functions of the organization (e.g. finance, HRM, marketing) are organized in a functional way. In my opinion we need to be profession oriented, so the choice for product/market combinations for the educational units is a logical one. It is a good structure for achieving the strategic objectives.</p>
Academie B	<p>Within the <i>academies</i> of Saxion Hogescholen the education is developed and performed. The service units support the education. Product/market combinations towards the field and service units organized in a functional manner to support it.</p> <p>The above-described situation is not optimal for the achievement of the strategic objectives. The service units are located centralized within the organization. The quality of the provided service, centrally, towards the <i>academie</i> falls behind of the external expectations. Take for example the rosters. These are developed within a central service unit, in my opinion this is not optimal. To have the centralized service units which provide steering is fine. If there is decentralized effectuation within the <i>academie</i>.</p>
Academie C	<p>During that period the <i>academies</i> were developed as line departments, with a focus on specific domains. Next to the <i>academies</i>, there are the service units. But these are also within the <i>academie</i> themselves. Overall, Saxion Hogescholen has a functional structure with a focus on specific domains. This structure was suitable for the bachelor programs.</p>
Academie D	<p>Saxion Hogescholen was organized as a functional organization, the services were provided central. The <i>academies</i> were product/market combinations. They did not have all the functional services in-house. The structure of Saxion Hogescholen was adequate in order to achieve the strategic objectives. There was a period with bad rosters, but this has nothing to do with the discussion about centralized/decentralized. More important is to have good roster makers. With the other centralized service units the dean has not experienced any problems.</p>
Academie E	<p>Saxion Hogescholen is formally organized as a functional organization. But in practice, it has more a collegial approach. The service units are stricter in the implementation of the corporate strategy in comparison with the <i>academies</i>.</p> <p>The structure is not suitable to achieve the strategic objectives. My opinion is that a structure leads to certain behavior of people. When a service unit is organized in a functional manner, put next to other service units they are going to show autonomous behavior. This works contraproductive. The service units need to be subordinate to the <i>academie</i>. Because the education is the thing that matters.</p> <p>In the current situation it is more that there is a board of directors, service units and <i>academies</i>. In my opinion it has to be: board of directors, <i>academies</i> and then the service units that support both the board of directors and the <i>academie</i>. The dean gives two examples.</p> <p>Digital systems more and more structure the provided education. That ranges from the administration of grades to student monitoring systems. We want to implement the 'persoonlijke leerweg' in a way that is based upon our educational expertise. But that is not possible, because it does not fit the digital systems.</p> <p>The development of rosters is a centralized service. These people do not have any feeling with the personal demands of the different <i>academies</i> and how teachers 'feel' in certain</p>



lecture rooms.

We do not want to emphasize that services need to be decentralized because the economics of scale are considerable. But the service units need to be more supportive towards the *academies*.

Source: Conducted face to face interviews (2009)

The first conclusion about the organizational structure that can be drawn is that Saxion Hogescholen has a functional structure with a specific focus on domains. They have service units that are centralized units that provide services to the *academies*. Think for example about ITC services, development of rosters, finance. This is not a shocking conclusion. More interesting is if it was an adequate structure to achieve the educational strategic objectives. According to *academie A*, *C* and *D* the structure was adequate to achieve the educational strategic objectives. *Academie B* mentioned that the services that were provided by the centralized service units did not meet the external expectations. The suggestion of *academie B* was that the service units could stay centralized and provide steering but that the effectuation of the service can be done within the *academie*. This opinion is shared by *academie E*. *Academie E* mentioned that the service units need to be subordinate to the *academie*. While in the current situation the order is: board of directors, service units, and *academies*. As a last remark, *Academie E* mentioned that services do not need to be decentralized because the economics of scale are considerable. But the service units need to be more supportive towards the *academies*. Overall it can be concluded that the organizational structure does not really hinder the strategy implementation. But that there are some examples of issues (from *academie B* and *E*) that do not work smooth and can be improved, such as the schedules and ICT.

**Figure 4.12: Organizational processes used within the *academies* of the Saxion Hogescholen during the strategic period 2004 – 2008.**

<p><i>Academie A</i></p>	<p>We worked with project groups who got a task assigned and had to book results. Those project groups are monitored and, if necessary, steered by us. We have employees that come from industrial companies and know that money needs to be earned. So attention is paid to study efficiency rates. The monitoring of students, for example, is done on a trimester basis. We have some people looking at that.</p>
<p><i>Academie B</i></p>	<p>We gave our employees a ‘compas’ where we want to go as an <i>academie</i>. So we tried to create commitment from our employees in order to get them performing their tasks to achieve the goals of our ‘compas’.</p> <p>A measure we focused on is the propedeuse efficiency. Based upon that we developed initiatives, such as student guidance and changes in the heaviness of the study program. We used numbers to monitor the quality of performance and effects of the choices that we made.</p>
<p><i>Academie C</i></p>	<p>My opinion is that we need to go towards a more professional organization. We need to leave the managerial era behind us, where there is much attention for finance. We now have to create more balance, towards the professional organization.</p> <p>The teacher needs to be much more aware of his responsibility, his individual responsibility as well as his team responsibility. Agreements are made with the teachers, in terms of ‘what are you going to do in the light of the Saxion Hogescholen strategy and <i>academie</i> strategy’.</p> <p>Examples of such agreements; we talk about the propeseuse efficiency rate, the study efficiency rates after five years. The teachers do not have an unlimited professional interpretation of their work. This is limited by the strategic plan.</p> <p>Besides the above, we have a team activity plan, a team development plan and on an</p>

	individual level we have performance appraisals.
<i>Academie D</i>	<p>When there is only steering on input processes, the strategic objectives can be lost out of sight. Teachers receive a certain budget of hours and they can decide themselves how many contact moments and exams are planned. We monitored on student satisfaction and that kind of measures. Besides that, we monitored if there were enough contact moments between students and teacher.</p> <p>We also monitored study efficiency rates. This was a difficult process, because there was not enough data available to do it in a sophisticated way. It costs too much time to get the data available. Looking at study efficiency rates is first of all a collective achievement. We also looked more specific which courses went well and which courses went not so well. When things were not going that well we had conversations with the teacher(s) about that.</p>
<i>Academie E</i>	<p>The dean felt comfortable with input processes, creating a good atmosphere for my employees to work in. It is not about 'one more' or 'one less'. It is about the tendency, everyone is doing what he can.</p> <p>We do not have a culture of five-year plans. The employees have their own objectives. We arrange that in such a way that it fits with the common goals.</p> <p>No tight objectives were formulated for the employees. We had performance appraisals with our employees. In those conversations We do not talk about targets. We refused to develop forms with SMART developed objectives. We have personal conversations, when something went wrong we addressed that in such conversations.</p>

Source: Conducted face to face interviews (2009)

The results about which organizational processes the *academies* used quite differed. *Academie A* and *C* primarily used output processes (performance targeting), while *academie B* and *E* used cultural processes and self-control, which are input processes. At *academie D* they combined input and output processes. According to the theory of Mintzberg (1981) you would expect only input processes at a higher education institution but what you see in practice is that there are *academies* that use output processes as well.

#### 4.4.3. Availability of resources and capabilities

This section discusses the availability of resources and capabilities in order to execute the strategic plan for both higher education institutions.

##### *Universiteit Twente*

**Figure 4.13: Availability of resources and capabilities for the educational strategic objectives at the University of Twente during the strategic period 2000 – 2005.**

<i>Faculty A</i>	There was a limited budget for the start-up of new study programs. This made it more difficult to implement initiatives. It would have been easier to implement things if there were more resources available.
<i>Faculty B</i>	During that period a new study program started, here there were made investments with a certain reticence (e.g. in attracting staff) because it was uncertain how many students would apply for the study program. Besides that there were no issues that could not be implemented due to a lack of resources.
<i>Faculty C</i>	Not enough resources to achieve all of the objectives. For the start-up of a new study program there was an amount of funding but this was not sufficient. Another example is the wireless network on the campus. When you want to implement something for that, within the faculty, there were limited resources. But the dean wants to state that a lack of resources is not the most important bottleneck. The extent in which employees can adapt to change is the most important bottleneck.

Source: Conducted face to face interviews (2009)

All three faculties mentioned that there were limited resources available to develop new study programs. Notwithstanding that the development of new study programs was a part of the strategic plan of the University of Twente, so in that sense this led to an inferior implementation of that part of the strategic plan. This could mean that resources to secure a good implementation did not accompany the strategic plan.

**Saxion Hogescholen****Figure 4.14: Availability of resources and capabilities for the educational strategic objectives at Saxion Hogescholen during the strategic period 2004 – 2008.**

<i>Academie A</i>	There is a thing of wanting too much and having resources available. An example of this is the forming of an international network, with hindsight there can be concluded that it was more difficult and time expensive than expected. There were not enough people available to lobby and make contacts. Investing more time in this would be at the expense of the quality of education, which had priority.
<i>Academie B</i>	For example, the development of a new study program has to be financed from the operational budget. To finance the development of a new study program from the operational budget is a strange thought, because a new study program, in my opinion, is an investment. Because all of the resources, from the operational budget, are used for the primary process of teaching there are not enough resources to develop a new study program. In the current situation new study programs are developed over a long period, which is not an ideal situation.  Another example is the 'Persoonlijke Leerweg'. Nice idea, but there were no resources that support it. One of the elements of the 'Persoonlijke Leerweg' was to have a one-hour intake with every student. This was impossible in terms of resources available.
<i>Academie C</i>	Great objectives regarding research and the development of new master programs but not enough resources available for that. Impossible to achieve enough 'mass' to research. Not enough resources to attract teachers, lumpsum financing offers insufficient possibilities for that.
<i>Academie D</i>	Not enough resources on all fronts. For example, (for the development of a new master program it would be better to have more resources (e.g. people).
<i>Academie E</i>	Enough resources to implement the initiatives. Doubtful if it would be better when more resources were available.

Source: Conducted face to face interviews (2009)

In four of the five cases the *academies* at Saxion Hogescholen indicated not to have enough resources to achieve the educational strategic objectives. A resource is a broad concept. In the context of a higher education institution resources refer primarily to (the availability of) people. The availability of people is closely related to the availability of money. Not having any money available means that you cannot attract any personnel. All of the *academies* mentioned some interesting and different examples of objectives that were not or difficult to achieve by the lack of resources. For example, *academie A* would have established an international network easier when there were more people available to lobby. So, here the problem was that there was not enough capacity. More interesting is the example of *academie B*. The 'Persoonlijke Leerweg' was one of the main objectives of the educational strategy of Saxion Hogescholen, but it was an impossible objective to achieve in terms of resources available. One of the requirements of the 'Persoonlijke Leerweg' was to have an intake-interview with each student, which took about an hour. The dean of *academie B* calculated how much time that would cost him and concluded that he did not have the capacity to conduct these intake-interviews. Secondly, he indicated that he did not have any room in his budget to attract staff to conduct the intake-interviews. *Academies B, C and D* all mentioned then if there were more (development) resources available it would be easier to develop new study programs. They all mentioned that there was little time available next to the primary process to develop new study programs. *Academie B* added to that currently the development of new study programs are paid from the operational budget, which is not an ideal situation. Last interesting remark to make regarding the availability of resources has to deal with *Academie E*. They had enough resources available to achieve the educational strategic objectives.

**4.4.4. Task complexity (tension education versus research)**

Besides providing education is conducting research also of major importance for universities. In that sense the university has more task complexity compared to hogescholen. But since the last years hogescholen also have the possibility to conduct (practical) research. So the question that rose was if conducting research comes at a cost of providing education. To put it in other words, if there is a tension between education and research. In this section the answer to that question is presented.

**Universiteit Twente**

**Figure 4.15: Tension between education and research at faculties of the University of Twente during the strategic period 2000 – 2005.**

<p><i>Faculty A</i></p>	<p>One study program had a lot of students and because of that little time for research. An other study program had not so many students thus much time to conduct research. What I did to change this is to attract a different type of professors. More young professors who are focused on publishing research.</p> <p>The research was not at the cost of education. But it was something that was shouted by teachers, that they could not conduct research because they had to give a large amount of education. My response to that was to attract some extra employees so that research was possible for everyone.</p>
<p><i>Faculty B</i></p>	<p>The tension between education and research always arises, because as a small university you have to perform at the top. You have to excel at both, education and research.</p> <p>You cannot do much about it. You have to take care that the culture in the organization is good. I noticed that people worked more than 40 hours a week. Than I want to hold back in addressing their performance.</p> <p>The fact that there is a tension between education and research there is the possibility that the one comes at the cost of the other.</p>
<p><i>Faculty C</i></p>	<p>Big differences between the different 'old' faculties. One was more research-focused while an other was more focused on education. I am a big supporter that every employee does both.</p> <p>I do not think conducting research went at the cost of giving education. But this was something what the educational director discussed. That is what I always indirectly heard.</p> <p>Most researchers are used to it. Parts of the research were conducted outside the normal working hours.</p>

Source: Conducted face to face interviews (2009)

Faculty A mentioned that employees of some study programs did not have much time to perform research. As a solution the dean attracted more people to perform the research function of the faculty. In his opinion conducting research did not went at a cost of implementing the educational strategy. Faculty B mentioned that the tension between education and research was present. The dean mentioned that there was not much what could be done to solve this, except having a good culture. He admitted that conducting research could come at the cost of providing education. Though, he did not say that it was the case at his faculty. According to the dean of faculty C conducting research not went at a cost of giving education.

**Saxion Hogescholen**

**Figure 4.16: Tension between education and research at academies of Saxion Hogescholen during the strategic period 2004 – 2008.**

<i>Academie A</i>	The lectors came from outside and are additional. They have not influenced the primary proces in that sense.
<i>Academie B</i>	No tension, there is a budget for research. Apart of education. The added value lies in the combination of education and research. You got lively lectures. Students can participate in research.
<i>Academie C</i>	There were not enough resources to perform research. The tension that was present was related to time. Employees questioned themselves if they had the time to conduct research. While maintaining quality of education we tried to achieve both educational and research strategic objectives. We did not use 'education hours' in order to conduct research. This would lead to less quality in education.
<i>Academie D</i>	Doing research requires other skills from teachers. There was a limited amount of resources available to perform research. We have combined doing research with giving education. No tension between education and research. Research was kept limited in order to continue providing the education, as it should be.
<i>Academie E</i>	<p>Conducting research is part of the curriculum. But on the other hand, a lot of employees do not know what conducting research entails. You let students and teachers conduct research under supervision of lectors.</p> <p>Conducting research does not have a negative influence on achieving the educational strategic objectives. It only costs time to educate the employees in conducting research.</p>

**Source: Conducted face to face interviews (2009)**

The tension between education and research did not cause a lower performance on educational strategic objectives at Saxion Hogescholen. But there were some difficulties with performing research. First of all, the budget was limited. Secondly, not all the employees knew how to perform research. So some teachers needed education for that, which was time-consuming. The research performed at Saxion Hogescholen was limited because else it would come at a cost of the educational function Saxion Hogescholen had to perform. The added value of performing research for Saxion Hogescholen was that the education became livelier and students could participate in research.

So far we have discussed the realized strategy at faculty level (section 4.1) and several aspects that are of influence on the realization of strategy, these were the strategic planning process (section 4.2), strategic consensus (section 4.3) and elements of the strategy implementation process itself (section 4.4) In the following section a comparison will be made between both higher education institutions. Besides finding similarities and differences, is the comparison between both higher education institutions a nice way to summarize to most interesting research findings.

## 4.5. Comparison: University of Twente versus Saxion Hogescholen

The comparison between the University of Twente and Saxion Hogescholen is based on the four major empirical elements discussed in chapter 4, namely, the realized education strategy, strategic planning, strategic consensus and strategy implementation.

### 4.5.1. Strategy realization

This section compares the realized strategy of the faculties and *academies* of both higher education institutions. First by comparing the strategic objectives, initiatives, measures and targets they have developed. Secondly by comparing enrollments and study efficiency.

#### *Strategic objectives, initiatives, measures & targets*

The strategic initiatives that faculty A and C from the University of Twente developed were in line with the strategic plan. This is completely different what the dean of faculty B in the period 2004-2005 (since 2004 he was assigned as dean of the faculty). He put the strategic plan that his predecessor had developed aside and developed a plan on his own where he did not focus on educational strategic objectives. Faculty A used two important measures, namely the enrollment figures and study efficiency rates. The dean of faculty A did not set any targets. The idea was more that there needed to be improvement in the figures. Faculty B mentioned that during that period there was insufficient steering on (study) efficiency. The dean of faculty C used targets for their enrollments. So, there was quite some variety between these faculties.

When looking at the strategic objectives and undertaken initiatives of Saxion Hogescholen it can be concluded that these were in line with the educational strategic objectives of the Strategische Visie 2004-2008 (Appendix C). But the specific initiatives differed from *academie* to *academie*. Take for instance the educational objectives regarding 'Saxion in de wereld'. *Academie* A tried to establish partnerships in China while *academie* C established contacts in England, Germany and Norway. The (examples of) measures and targets that were used by the *academies* differed per *academie*. Some *academies* did not use any measures, others focused solely on 'soft' measures, e.g. if initiatives were implement successful and if there was any progress made, while others had more 'hard' (e.g. numerical) and SMART formulated measures.

Comparing these results it can be concluded that all of the faculties/*academies* except for one, developed strategic initiatives that were in line with the strategic plan. The results about the use of measures and targets were slightly mixed. One faculty of the University of Twente used measures for enrollments and study efficiency, while another faculty mentioned that the steering on performance measurement was insufficient and one faculty used targets for their enrollments. A similar pattern was visible at Saxion Hogescholen.

#### *Performance indicators (enrollments & study efficiency rates)*

The University of Twente easily achieved the 10% growth of first year students in the period 2000-2005. Besides that, the strategic objective to have 500 master students at the end of the strategic period is also achieved by the University of Twente and faculties A, B and C contributed significant to that effort. The efficiency targets, 70% propedeuse efficiency, 95% doctorate/bachelor efficiency and the target of 90% with a master degree were not achieved during that period. But when discussing efficiency rates it comes down to the basic question whether the faculties cause this, by offering bad education to the students or that it is because the students do not put enough time and effort in their study. During the face-to-face interviews it became clear that every faculty did what he could to improve the study efficiency rates but in the end it depends on the student, if he is willing to put time and effort in his study.

The performance indicators from Saxion Hogescholen showed that the number of enrollments at Saxion Hogescholen grew, but no specific target that they strived for was mentioned in the 'Strategische Visie 2004-2008'. When looking at the propedeuse efficiency rates of the Saxion Hogescholen *academies* it can be concluded that these are below the defined target of 70%, except for two study programs. One study program from *academie* A and the other from *academie* C. The target of a graduation rate of 50% was only

fully achieved by *academie A*. The other *academies* sometimes did achieve this target, but only for one study program or for only one cohort.

Comparing the performance indicators of the University of Twente and Saxion Hogescholen it can be concluded that both higher education institutions were growing during that period and therefore delivered a positive result. The study efficiency targets were more problematic to achieve. The University of Twente did not achieve one of them at all, compared to that the situation on Saxion Hogescholen was more positive. One explanation for not achieving the study efficiency rates was already mentioned, this also depends on the student itself.

#### 4.5.2. Strategic planning

When comparing the strategic planning process of the University of Twente with Saxion Hogescholen these look quite similar at first glance. Both higher education institutions had roughly three phases they went through while developing a strategic plan. First, both higher education institutions had a preparatory phase where the board of directors, together with some key staff members, developed a concept strategic plan. In the second phase there was the possibility for the employees to discuss and provide advice about this concept strategic plan. This latter participation was not active (e.g. developing) but more passive and afterwards when most things were already decided. Finally the strategic plan needed to be accepted by the participation council. When this was done, the concept strategic plan could be finalized.

There is one main difference between the University of Twente and Saxion Hogescholen. At the University of Twente there was much more emphasis on convincing stakeholders (especially the students) of the strategic direction of the board of directors wanted. In other words, there was more emphasis on consensus building at the University of Twente compared to Saxion Hogescholen. So to say, at the University of Twente there was a careful process going on to get students and staff on board of the strategic plan whereas at Saxion Hogescholen students and staff hardly had any influence on the strategic choices that were made.

#### 4.5.3. Strategic consensus

First of all it can be concluded, that deans from both the University of Twente and Saxion Hogescholen were most of the time aware of the educational strategic objectives and did agree with them most of the time. It is important to mention that one dean of the University of Twente, the dean of faculty B, agreed with the strategic objectives but rejected the strategic plan. The awareness at Saxion Hogescholen was a bit higher than at the University of Twente, 4,75 versus 4,31 on a 5-point scale. The agreement with the strategic objectives was slightly higher at the University of Twente compared to Saxion Hogescholen, 4,22 versus 4,14. When comparing how deans of both higher education institutions reacted when they did disagree upon an educational strategic objective it can be concluded that they reacted in a similar way. This can be illustrated with the following example.

An objective the dean of faculty A of the University of Twente was fully aware of (e.g. scored a 5) but did not agree upon (e.g. scored a 2) was the development of study programs together with the Vrije Universiteit. During that period he did not undertake any initiatives related to that educational strategic objective. The dean of *academie B* of Saxion Hogescholen was aware of the educational strategic objectives but disagreed (e.g. scoring a 1 or 2) with several educational strategic objectives. One of these objectives is the development of new study programs on the borders of existing study domains. Which can result in new study programs as well as individual choices of students. When looking at the undertaken initiatives at faculty B you can see that he did not develop the 'Persoonlijke leerweg' in the first two years, e.g. limiting the individual choices of students.

So, the reaction of two deans of different higher education institutions to disagree with a strategic objective is similar. Both deans chose not to develop any initiatives related to the educational strategic objective. In other words, absence of strategic consensus, with the educational strategic objectives, resulted in no development of initiatives. This reaction was shown most of the time for the deans of both higher education institutions. But sometimes deans did develop initiatives upon strategic objectives they did disagree upon. For example the dean of faculty A of the University of Twente did develop initiatives upon improving



enrollments and the dean of *academie D* of Saxion Hogescholen did implement the 'Persoonlijke leerweg' in some way, although he did not agree upon this educational strategic objective. More about the expectations regarding strategic consensus will be discussed in section 6.2. For now it is important to conclude that both higher education institutions reacted quite similar.

#### 4.5.4. Strategy implementation

In this section are the results regarding strategy implementation compared. It is divided in four sections, firstly comparing the strategic management processes, secondly comparing organizational structure and processes, thirdly comparing the availability of resources and capabilities and fourthly comparing task complexity in both higher education institutions.

##### *Strategic management processes*

This section compares the three strategic management processes; the communication of the strategic plan, the discussion of the strategic plan in the planning&control meetings and the feedback on the strategic plan.

##### Communication of the strategic plan

The communication of the strategic plan by the faculties and *academies* is done slightly different by every entity. The faculties of the University of Twente used initiatives ranging from plenary sessions to external meetings to discuss strategic issues. The *academies* of Saxion Hogescholen also used a wide variety of communication tools, such as newsletters, presentations, lunch discussions and informal meetings such as the year-end closing and opening of the new (study) year. The faculties and *academies* of both higher education institutions used (yearly) meetings for all employees to present discuss strategic issues, addressed strategic issues at informal occasions and most of the faculties/*academies* had an external meeting once a year to reflect on and discuss about strategy. At Saxion Hogescholen it was interesting to see that *academie B* did not communicate the strategic plan up front, only when it started to mean something for the employees. *Academie E* mentioned that the communication went on an informal basis, hereby referring to the idea of the network organization. A typical difference between the University of Twente and Saxion Hogescholen is that the strategy is discussed regularly within the faculty during the year. This was less the case at Saxion Hogescholen, where the strategy was more discussed and refined on a yearly basis.

##### Discussion of the strategic plan in the planning&control meetings

The results about the planning and control meetings at the University of Twente differed per faculty. According to faculty A the outline of the strategy was discussed, faculty B mentioned that strategic objectives were not systematically addressed during the planning & control meetings. Faculty C answered quite different, by saying that both financial results and strategic objectives were discussed. Every *academie* at Saxion Hogescholen mentioned that both the strategic objectives and the financial results were discussed. But here one remark needs to be made, *academie A* and *B* mentioned that the financial results came first, and the strategy second. A difference is visible between the University of Twente and Saxion Hogescholen. It looks that at Saxion Hogescholen the strategy was more discussed during the planning & control meetings than at the University of Twente.

##### Feedback on the strategic plan

Faculty A and B of the University of Twente both reflected on the strategic initiatives to look if they resulted in the desired outcomes and if not they put more effort in it. Because the dean of faculty C only was only there for a short period he did not had much time to reflect, but he certainly had the intention to do so. These results are similar to the results of the *academies* of Saxion Hogescholen. Every *academie* of Saxion Hogescholen reflected if the strategic initiatives that they undertook resulted in the desired outcomes. But the frequency in which they did differed between each *academie*. *Academie A* for example reflected once a year on their strategic performance. *Academie B* had a much higher frequency in which they reflected on their strategic initiatives, they discussed the progress of the several projects once per 4-6 weeks.

##### *Organizational structure and processes*

The first conclusion about organizational structure, according to the face-to-face interviews, is that both higher education institutions operate in a functional structure. Meaning that the structure was primary based on the activities that have to be undertaken by an organization. Hereby the faculties and *academies* were

focused on specific domains. According to the interviewed deans at the University of Twente this structure was an adequate one in order to (strive to) achieve the strategic objectives. This was not the case at Saxion Hogescholen, where two deans found that the organizational structure was not an adequate one. The dean of *academie B* mentioned that the services that were provided by the centralized service units did not meet the external expectations. The suggestion of *academie B* was that the service units could stay centralized and provide steering but that the effectuation of the service can be done within the *academie*. The dean of *academie E* shared this idea.

Looking at the organizational processes used at the faculties of the University of Twente it can be concluded that faculty A differed from faculty B and C. Faculty A explained that they made use of output processes. An example of faculty A was that departments received more funding if they attracted more students. This was the opposite of faculty B who emphasized that it was important to have a good culture. The dean of faculty B created this by, for example, having lunches with all his employees. The dean of faculty C thought that the academic staff was capable of self-regulating themselves. The same mixed outcomes about organizational processes were present at Saxion Hogescholen. One *academie* primarily focused on input processes while other *academies* used a combination of both input and output processes.

#### *Availability of resources and capabilities*

Regarding the availability of resources the following can be concluded. At all three faculties of the University of Twente the budget was limited, especially for the start-up new study programs. Similar results were found at Saxion Hogescholen. In four of the five cases the *academies* at Saxion Hogescholen did not have enough resources to achieve the educational strategic objectives. All of the *academies* mentioned some interesting and different examples of objectives that were not or difficult to achieve by the lack of resources. One interesting example was the example of *academie B*. The 'Persoonlijke Leerweg' was one of the main objectives of the educational strategy of Saxion Hogescholen, but it was an impossible objective to achieve in terms of resources available.

#### *Task complexity (tension education versus research)*

Faculty A and C mentioned that conducting research went not at the cost of providing education. The tension between education and research did not cause a lower performance on educational strategic objectives, but sometimes it was needed to add some staff or employees needed to conduct some research in their own time. Faculty B mentioned that conducting research could come at the cost of giving education but did not state that it really did. The tension between education and research did not cause a lower performance on educational strategic objectives at Saxion Hogescholen. But there were some problems in terms of resources available and employees not knowing how to conduct research. The deans of Saxion Hogescholen that conducting research enriched the educational function.

Figure 4.17 provides an overview how the faculties/*academies* of both higher education institutions performed on strategy realization, strategic planning, strategic consensus, and strategy implementation. Hereby a ++ means very good, a + is good, +/- means average, - is bad and - - means very bad. To understand how this table needs to be interpreted I will give two examples. A ++ for strategic planning means a very good strategic planning process. A + for task complexity means that the faculty or *academie* did not experience task complexity, which is a good thing in relation to strategy implementation. The precise definitions of what is good and what is bad are already provided in the expectations section (2.6) and are also visible in the following section (4.6).

Figure 4.17: Strategy implementation at the University of Twente and Saxion Hogescholen, an overview.

	Faculty of the University of Twente			Academie of Saxion Hogescholen				
	A	B	C	A	B	C	D	E
<b>Strategy realization</b>								
Strategic objectives/initiatives	++	--	+	+	+	+	+	+
Strategic measures/targets	+	-	+/-	-	--	+	++	+/-
Student enrolments	++	++	++	n/a	n/a	n/a	n/a	n/a
Study efficiency	-	-	-	+/-	-	+/-	-	-
<b>Strategic planning</b>	+	n/a	+	+/-	+/-	+/-	+/-	+/-
<b>Strategic consensus</b>	+	+	+	+	+/-	+	++	++
<b>Strategy implementation</b>								
Communication	++	+	+	+/-	-	+	++	+
Planning & Control meetings	+/-	-	+	-	+/-	+	+	+
Feedback on (progress of the) strategic plan	++	+/-	+/-	+	++	+/-	+	+
Organizational structure	+	+/-	+/-	+	-	+	+	--
Organizational processes	+	+/-	+/-	+/-	-	++	++	+
Availability of resources and capabilities	-	-	-	-	-	-	--	+
Task complexity (tension education versus research)	+	+/-	+	+	+	+	+	+

Source: Own illustration

## 4.6. Expectations & practice

This chapter concludes with the discussion of the expectations that were formulated in chapter 2. The expectations that were drawn up from the theory will be compared with the results in order to look if these held true in practice.

*E1: A high degree of participation, in terms of many different actors, active participation and having voting power or shared decision-making responsibility in the strategic planning process of the corporate educational strategy, leads to a high degree of educational strategy execution by the faculties of the higher education institution*

When you look at the results you see that every dean that was present at the higher education institution during the period of the strategic planning process developed strategic initiatives in order to achieve the educational strategic objectives. The dean of faculty B of the University, who was not a dean during the strategic planning period, did not develop any strategic initiatives related to the educational strategic objectives. When you compare the strategic planning process of both higher education institutions you can conclude that the strategic planning process of the University of Twente was a more participative one compared to Saxion Hogescholen. There were more different actors involved, for example academics and students, but the type of involvement was a rather passive one. There are actually two groups actively involved in the strategic planning process. These are the central administrators and the faculty administrators. At Saxion Hogescholen strategic initiatives related to educational strategic objectives were developed to the same extent at the University of Twente. Thus we can conclude when a dean does not participate in the strategic planning process at all this can lead to not developing strategic initiatives related to educational strategic objectives. But this difference in the strategic planning process is not of influence on the development of strategic initiatives. So, the expectation is partly found in practice.

*E2: A high degree of strategic consensus, in terms of good understanding of and commitment to the corporate educational strategy of the dean, leads to a high degree of educational strategy execution by the faculties of the higher education institution*

This expectation held true in practice. What we saw is that when the deans scored high on strategic consensus they were willing to implement strategic initiatives in order to achieve these specific educational strategic objectives. When the deans were aware of the strategic objective but were not committed to it, a situation called informed scepticism, they most of the time did not implement any strategic initiatives related to that specific educational strategic objective.

*E3a: Well-executed communication of the strategic plan, in terms of the use of many different communication methods, frequent communication and communication throughout the strategic period, leads to a high degree of educational strategy execution by the faculties of the higher education institution*

*E3b: Well-executed planning&control meetings, in terms of discussing the strategic plan in an intense way, leads to a high degree of educational strategy execution by the faculties of the higher education institution*

*E3c: Well-executed feedback on the strategic plan, in terms of intense reflection on the strategic plan and being able to solve unsuccessful strategic initiatives, leads to a high degree of educational strategy execution by the faculties of the higher education institution*

All faculties of both higher education institutions differed in the way they performed the strategic management processes. Take for instance the communication of the strategic plan. Some faculties used many different communication methods on a frequent basis while other faculties only used one or two communication methods only at the beginning of the strategic period. Also the planning&control meetings differed per faculty. While for some faculties the strategic plan was barely discussed in the planning&control meetings this was different for other faculties. Almost every faculty reflected in the strategic plan, in the sense of coping with unsuccessful strategic initiatives, but the frequency in which they did this differed. When you look at the strategic performance indicators of the higher education institutions this did not seem to matter, these were quite the same. Furthermore did almost all of the deans develop

strategic initiatives in line with the corporate educational strategic plan to the same extent. Thus we can conclude that this expectation did not hold true in practice.

*E4: A functional, multidivisional or team-based organizational structure of the higher education institution has a positive influence on educational strategy execution by the faculties of the higher education institution*

Both higher education institutions have a functional organizational structure. For two *academies* of Saxion Hogescholen this was not a perfectly adequate structure. The dean of *academie* B mentioned that the services that were provided by the centralized service units did not meet the external expectations. The dean of *academie* E adds to this that that the service units need to be subordinate to the *academie*. While in the current situation the order is: board of directors, service units, and *academies*. As a last remark, *Academie* E mentioned that services do not need to be decentralized because the economics of scale are considerable. But the service units need to be more supportive towards the *academies*. The other faculties and *academies* did not experience difficulties with the organizational structure. It did not hinder them in the achievement of educational strategic objectives. Therefore this expectation was partly true in practice.

*E5: Cultural processes, processes of self-control and performance targeting have a positive influence on educational strategy execution by the faculties of the higher education institution*

Similar to the results regarding the strategic management processes were the results concerning organizational processes. Some faculties and *academies* made use of only output processes, performance targeting, while other focused solely on input processes, primarily cultural processes and self-control. *Academie* C and D of Saxion Hogescholen made use of both input and output processes. This did not result in significant different results in terms of strategy realization. Thus, this expectation was not found to be true in practice.

*E6: Sufficient availability of resources and capabilities for the execution of the educational strategy, in terms of people, money, information and technology, has a positive influence on educational strategy execution by the faculties of the higher education institution*

Almost all the deans of the faculties of both higher education institutions mentioned that they had insufficient funds available to implement all the educational strategic objectives. Primarily regarding the development of new study programs. So, insufficient availability of resources and capabilities has a negative influence on educational strategy execution. From this information it is difficult to conclude that sufficient availability of resources and capabilities has a positive influence on educational strategy execution. But it indicates more educational strategic objectives could be implemented when the deans had more resources which might had lead to a better educational strategy execution. But you can debate if it is per definition possible to implement all the educational strategic objectives in terms of available resources and capabilities, like money and people, setting priorities is part of strategic management.

*E7: A high amount of task complexity, in terms of heavy competition for resources between education and research, has a negative influence on educational strategy execution by the faculties of the higher education institution*

The deans of both higher education institutions admitted that there is some kind of tension between providing education and conducting research but that this tension did not lead to a lesser implementation of the educational strategic plan. The deans of Saxion Hogescholen limited the amount of research teachers could conduct in order to keep the same level of education. One dean of the University of Twente said that if there was too much work to be done he would simply attract more staff. Another dean of the University of Twente said that parts of the research were conducted, by the academics, outside the regular hours. In this way the tension between education and research could be resolved. So the expectation that a high amount of task complexity has a negative influence on educational strategy execution was not found in practice. Of course the remark needs to be made is that this answer was given by the deans and not by the academics themselves. It can be the case that the academics perceive this tension different and that conducting research does come at the cost of providing education.

## 5. CONCLUSION

This chapter presents the conclusions that can be drawn from this study. The purpose of this research was to examine how different types of higher education institutions implement the corporate educational strategy in their faculties. This chapter is structured in the following way. In section 5.1 the answer on the sub questions and main research question is given. A reflection and discussion is provided in section 5.2.

### 5.1. The research questions answered

The main research question is:

*How is the corporate education strategy of a hogeschool and of a university implemented by their different faculties? And does this have an impact on the realisation of the corporate education strategy?*

To answer this main research question five sub questions were formulated. Each sub question will be answered. Next a general answer on the main research question will be given.

#### 5.1.1. What is strategic management and how can it be applied to higher education institutions?

Strategy is the direction and scope of an organization over the long term, which achieves advantage in a changing environment through its configuration of resources and competence with the aim of fulfilling stakeholder expectations (Johnson *et al.*; 2006). Strategic decisions tend to be complex in nature, be made in situations of uncertainty, affect operational decisions, require an integrated approach and involve considerable change (Johnson *et al.*; 2006). The key area of strategy making in organizations concerns the elaborations of the basic mission (the products or services offered to the public). Other important areas of strategy include the inputs to the system (notably the choice and subsequent tenuring of academic staff, the determination of student enrollment, and the raising of external funds), the means to perform the mission (the construction of buildings and facilities, the purchase of research equipment etc.), the structure and forms of governance (design of the committee system, the hierarchies, the regulations concerning promotion and tenure, etc.), and the various means of support for the mission (notably the elaboration of the university's support structure, from computers and libraries to alumni offices and printing facilities)(Hardly *et al.*; 1984).

The focus of this research was on strategy implementation. What is the appropriate realignment of structure, systems, leadership behavior, human resource policies, culture, values and management processes? This research applied four different aspects of strategy implementation on two higher education institutions. First of all it looked at the process prior to strategy implementation, which is the strategic planning process. Secondly, this research focused on strategic consensus. Thirdly, this research focused on strategic management processes, organizational structure, organizational processes, availability of resources and task complexity (which can lead to a tension between education and research). Fourthly, this research focused on the translation of strategic objectives into concrete initiatives, measures and (achievement of) targets.

In order to conduct this research, and apply the theory to higher education institutions, four data sources were used. These were strategic documents, an online questionnaire, face-to-face interviews and performance indicators. With this collected data an answer can be given on the second research question.

#### 5.1.2. How do academies of a hogeschool and faculties of a university translate and execute the corporate educational strategy?

We will discuss three researched aspects related to strategy implementation, strategic planning, strategic consensus and strategy implementation itself.

For both higher education institutions the strategic planning process consisted of three phases. A preparatory phase in which the strategic plan was developed. A feedback phase in which involved stakeholders could give their opinion on the strategic plan and a final phase in which the strategic plan was accepted. There was one main difference between the University of Twente and Saxion Hogescholen related to convincing stakeholders of the strategic direction of the board of directors wanted. But we will discuss similarities and

differences in more detail in the answer on the next research question. This research question is limited to describing the translation and execution of the educational strategy.

The deans of both higher education institutions were most of the time aware of the educational strategic objectives and also did agree upon them most of the time. In other words, strategic consensus was relative high. But when there was no strategic consensus on the educational strategic objective the deans, most of the time, chose not to develop any educational strategic initiatives related to that objective.

For both higher education institutions the communication of the strategy, throughout the faculty or *academie*, was good, or sometimes even very good. This was the case except for *academie* A and B of Saxion Hogescholen. The discussion of the strategic plan in the planning and control meetings at the University of Twente differed per faculty, ranging from little discussion to quite much. The strategic plan was discussed in a moderate to good way during the planning and control meetings at Saxion Hogescholen, except for *academie* A. There was moderate feedback on the strategic plan at the University of Twente at faculty B and C and very good feedback at faculty A. The feedback on the strategic plan at Saxion Hogescholen ranged from moderate to very good.

The deans of the faculties of the University of Twente and of the *academies* A, C and D of Saxion Hogescholen mentioned that the organizational structure of the higher educational institution was an adequate one to achieve the educational strategic objectives. The deans of *academie* B and E of Saxion Hogescholen judged that the organizational structure was not an adequate one. Regarding organizational processes the results were mixed. Some faculties and *academies* made use of only output processes, while other focused solely on input processes. *Academie* C and D of Saxion Hogescholen made use of both input and output processes.

All the faculties/*academies* of both higher education institutions, except *academie* E of Saxion Hogescholen, mentioned that there were insufficient resources and capabilities to implement the educational strategy. Regarding task complexity, which could lead to a tension between providing education and conducting research, almost all the faculties judged that there existed no tension between providing education and conducting research.

### **5.1.3. What are the similarities and differences in the translation and execution of the corporate educational strategy by the *academies* of the *hogeschool* and faculties of the university?**

In the translation and execution of the corporate educational strategy by the *academies* of the *hogeschool* and faculties of the university there are several similarities. First of all, the faculties and *academies* of both higher education institutions score the same on strategic consensus and acted in the same way when they did not agree with an educational strategic objective. This implicates two things. First of all that the deans of both higher education institutions are well informed about the strategic intentions of the board of directors. Secondly, it also that deans do not hesitate to use their autonomy when they do not agree with an educational strategic objective.

A second similarity is the way the deans of both higher education institutions thought about the availability of resources and capabilities. The faculties and *academies* of both higher education institutions did not have enough resources and capabilities available to implement the educational strategic objectives. This limited availability of resources and capabilities implicates that deans have to set priorities which educational strategic objectives they want to accomplish. A nice example of this is the way the dean of *academie* B of Saxion Hogescholen implemented the 'Persoonlijke Leerweg'. He calculated that some aspects of the 'Persoonlijke Leerweg', such as an intake with every new student, were not possible to accomplish in terms of available staff. Hereby he argued that he could use his (limited) staff in a better way.

A third similarity is that almost all the deans of both higher education institutions agreed that a functional structure was an adequate one for the achievement of the educational strategic objectives.



Regarding a possible tension between providing education and conducting research, due to task complexity, the deans of both higher education institutions thought in a similar way. Almost all of them thought that such a tension was not present. The major reason that such a tension was not present at Saxion Hogescholen was because they consciously limited the amount of research so it would not come at the cost of providing education. At the University of Twente this tension was not present because there was enough staff available to perform both (faculty A) and academics are willing to do some of their research activities in their own hours (faculty C).

Besides these similarities there were also some striking differences between both higher education institutions. A prominent difference is the way the strategic planning process went at both higher education institutions. At the University of Twente there was a careful process going on to get students and staff on board of the strategic plan whereas at Saxion Hogescholen students and staff hardly had any influence on the strategic choices that were made. A possible alternative explanation for this can be that a *hogeschool* has, historically, more a top-down culture compared to a university. But the remark needs to me made that this was not studied in this thesis.

A second difference between the faculties and *academies* of both higher education institutions is the way the strategic management processes, e.g. communication, planning&control meetings and feedback on the strategic plan, are performed. When looking at figure 4.17 this becomes clear. A possible alternative explanation for these differences might be the leadership style of the dean. It can be the case that the leadership style of a dean is a very communicative one, while another dean does not prefer to communicate that much. Another possible alternative explanation can be the importance that the different deans attach to the strategic plan. It can be the case that one dean is not that interested in the strategic plan and focuses more on the primary process of providing education and/or conducting research in stead of strategic issues. Both elements can be interesting for further research.

The results regarding organizational processes also differed per faculty/*academie*. The differences in the use of input processes, output processes or a combination of both by the deans might be related to the leadership style of the dean. But because leadership style (of the dean) was not part of theoretical framework we cannot formulate a conclusion about that.

#### **5.1.4. Did the *academies* of the *hogeschool* and the faculties of the university contribute to the realization of the corporate educational strategy?**

The strategic initiatives that faculty A and C from the University of Twente developed were in line with the strategic plan. The dean of faculty B put the strategic plan that his predecessor had developed aside and developed a plan on his own where he did not focus on educational strategic objectives. Faculty A used two important measures, namely the enrollment figures and study efficiency rates. The dean of faculty A did not set any targets. The idea was more that there needed to be improvement in the figures. Faculty B mentioned that during that period there was insufficient steering on (study) efficiency. The dean of faculty C used targets for their enrollments. So, there was quite some variety between these faculties.

When looking at the strategic objectives and undertaken initiatives of Saxion Hogescholen it can be concluded that these were in line with the educational strategic objectives of the Strategische Visie 2004-2008 (Appendix C). But the specific initiatives differed from *academie* to *academie*. In a way it is good that the strategic documents of higher education institutions are quite ambiguous. It allows the *academies* to undertake initiatives that best fit their domain. Next to that it, an ambiguous strategic document can get things started when a strategic issue is contested, because every *academie* can implement it in his own way. The (examples of) measures and targets that were used by the *academies* differed per *academie*. Some *academies* did not use any measures, others focused solely on 'soft' measures, e.g. if initiatives were implement successful and if there was any progress made, while others had more 'hard' (e.g. numerical) and SMART formulated measures.

The University of Twente easily achieved the 10% growth of first year students in the period 2000-2005. Besides that, the strategic objective to have 500 master students at the end of the strategic period is also



achieved by the University of Twente and faculties A, B and C contributed significant to that effort. The efficiency targets, 70% propedeuse efficiency, 95% doctorate/bachelor efficiency and the target of 90% with a master degree were not achieved during that period.

The performance indicators from Saxion Hogescholen showed that the number of enrollments at Saxion Hogescholen grew, but no specific target that they strived for was mentioned in the 'Strategische Visie 2004-2008'. When looking at the propedeuse efficiency rates of the Saxion Hogescholen *academies* it can be concluded that these are below the defined target of 70%, except for two study programs. One study program from *academie A* and the other from *academie C*. The target of a graduation rate of 50% was only fully achieved by *academie A*. The other *academies* sometimes did achieve this target, but only for one study program or for only one cohort.

A possible alternative explanation why study efficiency rates at Saxion Hogescholen tend to be better achieved than at the University of Twente is because of the type of education both institutions provide. It needs to be mentioned that this was not addressed in this thesis but it can be an interesting element for further research.

#### **5.1.5. Can the extent of strategy realization of the *academies* of the *hogeschool* and the faculties of the university be explained by the way the corporate educational strategy was implemented?**

The quantitative judgment regarding strategy realization was limited, because it focused only on study efficiency and enrolments. Furthermore we looked at the initiatives, measures and targets that the faculties of both higher education institutions undertook in order to formulate a qualitative judgment about strategy realization.

Although there are differences in strategy implementation faculty A and C of the University of Twente and all *academies* of Saxion Hogescholen developed strategic initiatives that were in line with the strategic plan of the higher education institution. This was not the case for faculty B of the University of Twente, he put the strategic plan that his predecessor had developed aside and developed a plan on his own. It was unclear of this plan was in line with the UT strategy. But he mentioned that during the period 2004-2005 there was no policy regarding education within the faculty. So, being able to participate in the strategic planning process might be of influence on the strategic initiatives (e.g. a part of the realized strategy) that a dean develops.

The results about the use of measures and targets were slightly mixed. One faculty of the University of Twente used measures for enrollments and study efficiency, while another faculty mentioned that the steering on performance measurement was insufficient and one faculty used targets for their enrollments. A same pattern was visible at Saxion Hogescholen. From the researched variables regarding strategy implementation there is no clear explanation found why the deans of the different faculties and *academies* differed in their use of measures and targets. To my opinion this is also related to the leadership style of the dean.

All the faculties achieved the enrolment targets of the University of Twente. For Saxion Hogescholen it was unable to judge about enrolment targets because they did not have any public enrolment targets. But for the University of Twente it can be concluded that different ways of strategy implementation lead to the (similar) achievement of the enrolment targets. The study efficiency targets were most of the time not achieved by both the University of Twente and Saxion Hogescholen. Also here can be concluded that different ways of strategy implementation lead to the similar outcome (e.g. not achieving study efficiency targets). It is debatable if the failure to achieve the study efficiency targets is (fully) attributable to the strategy execution. One explanation, mentioned by a dean, for not achieving the study efficiency rates is that this also depends on the student itself. As said earlier, a possible explaining factor for why study efficiency rates at Saxion Hogescholen are achieved a little more compared to the University of Twente is the type of education both institutions provide.

Overall it can be concluded that strategy implementation is a process that covers many different aspects of an organization, ranging from the strategic planning process till the organizational structure. What the

findings tell us is that faculties and *academies* operate as rather autonomous units. Within a higher education institution the faculties and *academies* are strongly decentralized and the (strategic) control is little. This is in line with what is mentioned by De Boer & Goedegebuure (2009) that management is not confined to the 'top' of the higher education institutions but that it cascades down to its constituent parts, like the faculties. In practice this leads to a great variety in faculty/*academie* interpretations and actions regarding the corporate education strategy. But these different interpretations and actions by the faculties/*academies* did not lead to significant different outcomes in terms of strategy realization.

We conclude this chapter with a reflection.

## 5.2. Reflection

In this section I will reflect on two things, first of all on the theory that I have used to perform this research and secondly on the topic strategy implementation.

### 5.2.1. Theory

The theory about strategic planning was applicable in practice and delivered a good description about how the strategic planning process was performed at both higher education institutions. The same holds true for the theory about strategic consensus.

The balance scorecard and theory about the organizational configuration was used in order to conduct the interviews with the deans of the faculties/*academies*. The theory about the balance scorecard was applicable, in that sense that it provided useful questions for the interviews. But the theory about the balanced scorecard also mentioned the strategic management processes; communication of the strategic plan, the discussion of the strategic plan in planning & control meetings and feedback on the strategic plan. Here the theory lacked some general recommendations about when the strategic management processes were performed in a good fashion. Here it depended on my own judgment if, for example, the strategic plan was communicated in a good way. Besides that, when conducting the interviews it became clear that it was difficult for the deans to make a distinction between a strategic objective and a strategic initiative. The theory about the organizational configuration, consisting of organizational structure and organizational processes was useful. Only the idea of (1979)(as cited by Johnson *et al.*; 2006) that higher education institutions solely relied on input processes was not found in practice. Currently, higher education institutions are also relying on output processes, and more specific on performance measurement as an output process.

The theory about implementation options is not used in a very explicit way during this research, although it was useful as a reference during the interviews. Because you could easily recognize the implementation options that the deans used to implement the strategic plan. Another part of theory that was not used explicit is the theory about different leadership types. But during the interviews you could recognize the different styles for managing strategic change. For example, the deans of *academie* B and E of Saxion Hogescholen used a style of intervention. Whereas the dean of *academie* C of Saxion Hogescholen used a more directive approach.

A more general remark I want to make about the theory that there is many strategic management literature available. Literature is available on many different subjects related to strategic management like organizational configuration, leadership styles and strategic consensus. But there is not that much strategic management literature that provides a framework that can be used to study how a strategy is (really) implemented into a (higher education) organization.

### 5.2.2. Strategy implementation

There are three issues I want to address. The first issue I want to address is the question how many employees are really concerned with a strategic plan and a strategy within an organization, and more specific within a higher education institution. My idea is that the essence of a strategic plan becomes diluted throughout an organization, this because there are several (bureaucratic) layers in an organization. And each person at the top of such a layer (e.g. a faculty, or a department in the case of a higher education

institution) has his own interpretation of the strategic plan. Eventually this will lead to an implementation of the strategic plan that not fully represents the strategic plan of 'the top' of the organization. You could argue that this is a bad thing. But there are two reasons why this does not have to be a bad thing at all. First of all, the deans of faculties, for example, know best what is going in their faculties and therefore can tailor the strategic plan to their own priorities and needs, within certain boundaries that the strategic plan provides. Secondly, over a large period of time a strategic plan can cause changes, even if not every bit of the strategic plan is implemented throughout the organization. A strategy (and strategic plan) can slowly move an organization into a certain direction. In my opinion a strategic plan is a good guiding document that provides steering and gives direction towards an organization. But it is not always as strong a guiding document. It has more a supportive function.

The second issue concerns the use of performance measurement in higher education institutions. During the interviews it became clear that not every dean was very enthusiastic about performance measurement, especially about the use of study efficiency rates, in higher education institutions. But the use of study efficiency rates and targets linked to those rates are good thing in the sense that it can be a useful tool to improve the education. The use of performance measurement raises awareness. It raises awareness about how well the education function of the higher education institution is performing. Thirdly, the use of performance measurement is better than using 'nothing'. Of course it is important to keep the quality of the education in mind and not to focus solely on quantity, but in general performance measurement is not necessarily a bad thing.

A last issue I want to address is the leadership style of the deans. The results showed that every dean differed regarding the strategic management processes and organizational processes. For example some deans used more communication than others and some deans made more use of output processes than others. My idea is that a possible explanation for this can be the leadership style of the dean. In a further research it might be interesting to look at the leadership style of the dean as an explanation for the different outcomes regarding strategic management processes and organizational processes.

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## APPENDIX A: MISSION STATEMENT UNIVERSITY OF TWENTE 2005-2010

The University of Twente is an enterprising research university with special focus on technological developments in the knowledge society. The university needs to be responsive to the requirements of the knowledge society and also has a special responsibility to develop and implement a broad knowledge potential in science and technology. In order to meet these challenges, the University of Twente advocates the establishment of a single Federation of Technical Universities in the Netherlands in 2010. The three technical universities agreed to join forces in 2005 and on 7 February 2007 the 3TU Federation was launched. The 3TU Federation aims to operate effectively at both national and international level. Within the 3TU framework the University of Twente promotes outstanding educational standards and world class research that leads the way in a number of specific areas. In pursuit of these goals, the University of Twente also wants to stimulate economic and social development regionally: in Twente, the north-east of the Netherlands, and in the Gronau-Twente Euregio

A focus on the interdependent relationship between social and technological innovation is a distinguishing feature of the University of Twente and this is reflected in the way it carries out its core activities. Strategic networks of public and private partners are encouraged. On campus academic training occupies a central position and the University's special character is reflected in the organisation of its degree programmes. Teaching is of the highest standard and the University is committed to:

- an educational programme that is in tune with the latest international research developments;
- an approach that allows students to seek challenges in the study programmes they are being offered;
- Bachelor's programmes that are broad-based, with ample opportunity for excellent students to be put on the international honours track, and to adapt their study programme to fit their personal profiles;
- providing a limited number of selective Master's profiles that reflect the University's core research activities, in addition to the standard Master's programmes that follow on from the Bachelor's;
- ensuring that the research Master's programmes, whenever possible and desirable, lead to a fast-track PhD programme;
- giving academic training a central place in both the Bachelor's and the Master's degree programmes;
- the application of modern educational insights across all teaching programmes;
- an explicit and continuous orientation towards the requirements of the labour market;
- the application of internationally agreed quality norms.

The University of Twente conducts world class research that:

- contributes to fundamental technological and social innovation by carrying out experimental and design-oriented technological research in unique combination with social and behavioural science research;
- is underpinned by a strong focus on the implications of technological innovation and the development of the knowledge society;
- is multidisciplinary in character, and rooted in the knowledge base of the underlying disciplines;
- is organised in a limited number of authoritative, distinctive and internationally acclaimed research institutes;
- is carried out in a context of intensive interaction with the public and the private sectors;
- creates opportunities for new areas of development, rich in potential.

This mission is being accomplished by a highly motivated, outstanding academic community with the full support of a Student Union charged with the tasks of promoting an active student community and a specific range of high-quality services. Financial prudence, modern human resource management, and adequate housing and facilities are important preconditions to ensure its success.

## APPENDIX B: EDUCATION OBJECTIVES UNIVERSITY OF TWENTE 2000-2005

### *Algemeen*

1. De Universiteit Twente streeft naar het realiseren van een groei in aantallen studenten van 10% per jaar gedurende de planperiode.

### *Vernieuwing bestaande aanbod*

4. Het volledig tot ontwikkeling brengen van het major/minor-concept. Het aanbieden van 70 majors en 35 minors, met daarbij het tot ontwikkeling brengen van de achterliggende visie.
5. Het institutionaliseren van de flexibele propedeuse. Hiertoe zal het vigerende mentoraat ontwikkeld worden tot een studentenvolgsysteem, decentraal vorm gegeven en uitgevoerd, en op instellingsniveau adequaat ondersteund met informatiesystemen.
6. Aan de student wordt een breed scala van combinatiemogelijkheden van majors en minors geboden, waarbij tevens een rol is weggelegd voor nationale partners in WO en HBO en de internationale partners van de UT.
7. Verdere ontwikkeling van deeltijdvariant van de initiële opleiding.

### *Nieuw aanbod in de initiële fase*

1. Starten van de opleidingen Biomedische Technologie en Gezondheidswetenschappen.
2. Ontwikkelen van nieuwe studiemogelijkheden in nauwe samenwerking met de strategische partner, de Vrije Universiteit. Hierbij worden mogelijkheden onderzocht van het samen ontwikkelen en aanbieden van studiepaden op het terrein van de natuurwetenschappen, de maatschappijwetenschappen en de ontwikkelingssamenwerking.
3. Samen met de buitenlandse partnerinstellingen de WWU Munster, de KU Leuven en de instellingen uit het ECIU-netwerk zal worden gewerkt aan het ontwikkelen van gezamenlijke programma's, resulterend in zogenaamde dubbeldiplomering (reeds vergevorderd bij Bestuurskunde en Lasertechnologie).
4. De mogelijkheden bekijken om enkele van de meer generieke minors uit het UT-aanbod uit te bouwen tot zelfstandige majors en/of opleidingen.
5. Verdere intensivering van de samenwerking met het HBO, uitmondend in een uitbreiding van decentrale UT-propedeuses.
6. Realisatie van een opleiding Kunst & Technologie in samenwerking met de Academie voor de Kunst en Industrie en de Hogeschool Enschede.

### *Nieuw aanbod in de postinitiële fase*

1. Verdere uitbouw van het internationale master aanbod. Hierbij wordt er naar gestreefd om het internationale master aanbod te laten sporen met het aanbod van haar majors.
2. Het aanbod op het gebied van permanente educatie op peil houden en waar nodig uitbreiden om te voldoen aan de vraag van het afnemend veld.

### *Modernisering van de onderwijsprocessen*

1. Verdere ontwikkeling en institutionalisering van de Student Union.
2. De verbetering van de individuele leerprocessen van de student door het just-in-time contact tussen docent en student te faciliteren waarbij ICT centraal staat.

### *Kwaliteitszorg*

1. In de planperiode zal het systeem van kwaliteitsborging inclusief performance indicatoren, instellingsbreed worden geïmplementeerd.
2. In de planperiode zal de interne informatie- en monitoringfunctie, zoals neergelegd in het project Institutional Research, verder worden ontwikkeld. Onderdeel hiervan vormt het opwaarderen en gebruiksvriendelijk maken van de bestaande informatiesystemen.

3. In de planperiode zal een interne accrediteringssysteem voor minors worden ontwikkeld.
4. In 2005 moeten alle opleidingen (voorlopig) geaccrediteerd zijn of kunnen zijn. De hiervoor benodigde centrale informatiesystemen zullen uiterlijk in 2002 volledig operationeel moeten zijn.

*Internationalisering*

1. De UT stelt zich ten doel dat 50% van haar studenten naar het buitenland gaat voor stage, het volgen van vakken of het uitvoeren van een afstudeeropdracht.
2. De UT stelt zich ten doel om de buitenlandse studenteninstroom te vergroten van 200 naar 500 studenten gedurende de planperiode.

*Streefcijfers onderwijs*

1. Totale 1<sup>e</sup> jaars instroom: het studentenvolume moet de komende vijf jaar, op basis van jaarlijkse groei, aan het eind van de periode zijn gestegen met ongeveer 10 procent. Dit betekent dat het marktaandeel t.o.v de twee andere TU's moet stijgen van 26% naar 30% en dat het marktaandeel wat betreft de totale WO-instroom moet stijgen naar 4%.
2. De internationale Msc instroom moet 500 in 2005 bedragen, d.w.z. dat het aandeel buitenlandse studenten van 3% zal moeten stijgen naar 8%.
3. Het propedeuse rendement zal in de komende vijf jaar moeten stijgen van 60% naar 70%.
4. Het doctoraal rendement zal in de komende vijf jaar moeten stijgen van 77% naar 95%.
5. Het Msc rendement zal rond de 90% moeten liggen.



## APPENDIX C: EDUCATION OBJECTIVES SAXION HOGESCHOLEN 2004-2008

### *Regionale positie*

1. Saxion biedt studenten een breed pakket met aandacht voor de integratie van brede hbo-, domein- en specifieke competenties met op maat gesneden persoonlijke leerwegen.
2. De maatschappelijke vraag naar kennis richt zich steeds vaker op nieuwe onderwerpen die zich afspelen op het snijvlak van bestaande kennisdomeinen. Saxion ontwikkelt daarom onderwijsaanbod op die snijvlakgebieden. Dat kan leiden tot zowel nieuwe opleidingen als tot individuele keuzes en leerwegen van studenten.

### *Instroom en doorstroom, een grotere deelname aan het hbo*

1. Het Nederlandse overheidsbeleid is erop gericht de participatiegraad aan het hoger onderwijs te verhogen. Saxion zoekt in dit kader actief naar oplossingen, door met name te zoeken naar een zeer goede afstemming en verstrengeling met onze onderwijspartners in het voorgezet onderwijs, het mbo en het wo en in de flexibilisering van ons eigen onderwijs.
2. Doorstroom naar masteropleidingen voor die studenten die dit willen en kunnen, hier en elders, wordt een speerpunt van het doorstroombeleid. Binnen haar netwerk zal Saxion daarover afspraken maken met partners.
3. In het vervolg op het project Herontwerp Techniek zullen we ons moeten beraden op de toekomstige structurering van het aanbod van techniekopleidingen. Het integreren en delen van kennisontwikkeling en faciliteiten met andere aanbieders – de mbo-instellingen en bedrijven – is daarbij van groot belang.

### *De onderwijsvisie: verbreding, maatwerk en keuzevrijheid*

1. Onderwijs dat gestandaardiseerd en breed over een aantal opleidingen verzorgd kan worden, dient ook gezamenlijk ontwikkeld en uitgevoerd te worden.
2. Onderwijs dat speciaal en smal verzorgd moet worden, wordt ontwikkeld en uitgevoerd voor zover de middelen dat toelaten, dus zover het kan.
3. In het kader van onze missie past het om elk jaar een aantal zogenoemde miniconferenties, seminars of onderwijsdagen te houden.
4. Een overzichtelijk keuzeprogramma met een aantal onderling goed afgestemde leerlijnen is in het belang van zowel de student als de organisatie. Saxion zet daarom in op een eenduidig major- en minorsysteem dat het huidige versnipperde basisaanbod vervangt.

### *Saxion in de wereld*

1. In alle opleidingen van het Saxion is een internationale component in het programma opgenomen. Dat betekent dat wij alle studenten in de gelegenheid stellen om tijdens hun studie kennis te maken met de internationale componenten binnen hun vakgebied. Tevens stellen wij onze studenten in staat om een gedeelte van hun studie in Europa te volgen.
2. Saxion vindt het noodzakelijk om tot duurzame relaties met een selectie van andere onderwijsinstellingen in consortiumverband te komen. Eigen initiatief zal binnenkort moeten leiden tot een netwerk van een selecte groep Europese hogescholen, die studenten en docenten uitwisselen en gezamenlijk onderzoekstrajecten onderhouden.
3. Saxion biedt Duitse en Nederlandse studenten de gelegenheid om gezamenlijk te studeren in Enschede. De contacten met de Euregionale partners, Fachhochschulen Münster en Osnabrück, worden bestendig en, waar nodig, versterkt.
4. Buiten Europa werkt Saxion samen met een beperkt aantal erkende en vertrouwde partners op het gebied van het aanbieden van onderwijs aan studenten in het land zelf of in Nederland. Daarnaast neemt Saxion deel aan gesubsidieerde (ontwikkelings)projecten ter plekke en stelt zij reguliere opleidingen open voor buitenlandse studenten.

## APPENDIX D: INTERVIEW QUESTIONS UNIVERSITY OF TWENTE

### *Inleiding*

Voor de periode 2000-2005 zijn de strategische doelstellingen van de Universiteit Twente weergegeven in het strategisch document 'Instellingsplan 2000-2005', zo ook de doelstellingen op onderwijsgebied. Deze zijn onderverdeeld in de volgende categorieën:

- Vernieuwing bestaand aanbod
- Nieuw aanbod initiële fase
- Nieuw aanbod postinitiële fase
- Modernisering van onderwijsprocessen
- Kwaliteitszorg
- Internationalisering

Daarnaast zijn er enkele streefcijfers gedefinieerd op het gebied van onderwijs:

- Totale 1<sup>e</sup> jaars instroom: Het studentvolume moet de komende vijf jaar, op basis van jaarlijkse groei, aan het eind van de periode zijn gestegen met ongeveer 10%.
- De internationale Msc instroom moet 500 studenten in 2005 bedragen.
- Het propedeuse rendement zal in de komende vijf jaar moeten stijgen van 60% naar 70%.
- Het doctoraal rendement zal in de komende vijf jaar moeten stijgen van 77% naar 95%.
- Het Msc rendement zal rond de 90% moeten liggen.

Mijn eerste vragen zullen gaan over de strategische doelstellingen van de faculteit in de periode 2000-2005.

### *Strategische doelstellingen en initiatieven*

1. Welke strategische doelstellingen heeft u op onderwijsgebied gesteld voor uw eigen faculteit? Meer specifiek; voor elk van de genoemde categorieën. En met wie zijn deze doelstellingen opgesteld?
2. Met welke initiatieven heeft u getracht de doelstellingen die u heeft geformuleerd voor uw faculteit te bereiken?
3. Gegeven deze initiatieven, hoe heeft u meetbaar gemaakt of deze initiatieven werkten? En met welke targets waren deze meetinstrumenten voorzien? Hoe werd dit bijgehouden?
4. Heeft u de mogelijkheid gehad de initiatieven volledig in te voeren? Met andere woorden, zijn de beleidsinitiatieven voldoende ondersteund en daardoor volledig uitgevoerd.

Deze vraag zal ik proberen toe te lichten aan de hand van een voorbeeld. Stel dat u een nieuwe opleiding wil ontwikkelen om zo nieuw aanbod in de initiële fase te genereren. Is er dan ook voor gezorgd dat er voldoende personeel, faciliteiten (ICT en technologie) en financiële ondersteuning is om het initiatief te laten slagen.

Vervolgens zou ik met u in willen gaan op een aantal processen die een rol spelen bij het implementeren van een strategie.

### *Strategische processen*

1. Hoe heeft u de strategische doelstellingen van uw faculteit gecommuniceerd aan uw medewerkers?
  - a. Welke communicatiemiddelen?
  - b. Met welke frequentie?
  - c. Wanneer? (Bv. Alleen aan het begin van de strategische periode of ook gedurende de periode)

Bij hoger onderwijs instellingen wordt met budgetten gewerkt en wordt er van tijd tot tijd besproken hoe het er voor staat met het budget, d.m.v. management rapportages (in een planning & control cyclus).

2. Hoe zien deze besprekingen eruit?
  - a. Wat wordt er besproken?
  - b. Gaan deze besprekingen alleen over het budget?
  - c. Of wordt er hierbij ook ingegaan op de (voortgang van de) strategische doelstellingen?

De volgende vragen gaan over de initiatieven die u heeft ondernomen om de strategische doelstellingen te bereiken en hoe u daarmee bent omgegaan.

3. Heeft u van tijd tot tijd gekeken naar de initiatieven die zijn ondernomen om de strategische doelstellingen te bereiken?
  - a. Of ze het beoogde effect hadden?
  - b. Hoe ging u om met de situatie wanneer bepaalde initiatieven niet het beoogde effect hadden behaald? (bv. Bijsturen of opzetten van andere initiatieven)

#### *Structuur en processen*

Uit de literatuur (Mintzberg) blijkt dat hoger onderwijs instellingen opereren in een functionele structuur, wat inhoudt dat taken worden verdeeld op basis van functies. Zoals P&O, Financiën etc.

1. Is bovenstaande ook zo voor de Universiteit Twente?
2. Welke structuur hanteert de Universiteit Twente?
3. Is deze structuur geschikt om de geformuleerde strategische onderwijs doelstellingen van uw faculteit te behalen?
4. Van welke soort processen worden er gebruik gemaakt om er voor te zorgen dat de strategische onderwijs doelstellingen van uw faculteit worden behaald?

Literatuur stelt dat er met name gestuurd wordt op basis van input processen. Zoals het creëren van een goede cultuur die kennisoverdracht en kenniscreatie mogelijk maakt en zelfcontrole zonder directe supervisie.

5. Maakt u ook gebruik van output processen om te zorgen dat de strategische doelstellingen van uw faculteit worden behaald?
6. Controleert u bijvoorbeeld uw werknemers op het aantal gemaakte publicaties, verzorgde colleges, etc (performance targeting)?

Naast het geven van onderwijs is het voor een universiteit ook van groot belang dat zij onderzoek verrichten. Hierover heb ik ook nog enkele vragen.

#### *Onderwijs vs. onderzoek*

1. Ervaart u een spanningsveld binnen uw faculteit tussen enerzijds het geven van onderwijs en anderzijds het doen van onderzoek door uw personeel?
2. Hoe gaat u daar mee om?
3. Gaat het doen van onderzoek ten koste van het behalen van de onderwijsdoelstellingen?

## APPENDIX E: INTERVIEW QUESTIONS STRATEGIC PLANNING

1. Hoe ziet het strategische planningsproces voor het ontwikkelen van de onderwijs strategie eruit?" M.a.w. hoe komt de onderwijsstrategie van het instellingsplan tot stand.
2. Wie zijn er betrokken bij het strategisch planningsproces?
  - a. Academici
  - b. Centrale bestuurders
  - c. Faculteitsbestuurders (inclusief departementsbestuurders)
  - d. Centrale raden
  - e. Faculteitsraden
  - f. Administratief/ondersteunend personeel
3. In welke mate zijn bovenstaande partijen betrokken bij het strategisch planningsproces?
  - a. Non-participatie
  - b. Passieve participatie
  - c. Actieve participatie
4. Op welke manier zijn de genoemde partijen betrokken bij het strategisch planningsproces?
  - a. Geen spreekrecht
  - b. Recht op informatie
  - c. Recht om gehoord te worden/recht op advies
  - d. Stemrecht
  - e. Gedeelde verantwoordelijkheid voor de genomen beslissing
5. Zijn er bepaalde punten geweest bij het tot stand komen van de onderwijs strategie waarover onenigheid was tussen een of meerdere personen/partijen?

## APPENDIX F: EDUCATIONAL OBJECTIVES, INITIATIVES, MEASURES & TARGETS

### F.1: Educational objectives, initiatives, measures & targets at the University of Twente during the strategic period 2000 – 2005.

Faculty	Objectives & Initiatives	Measures & Targets
Faculty A	<p><i>Vernieuwing bestaand aanbod</i></p> <ul style="list-style-type: none"> <li>• Different bachelor program, because of the implementation of the bachelor/master structure.</li> <li>• Common bachelor program with different profiles. Broad bachelor with a public administration profile, business administration profile, etc. There was quite some discussion about this topic.</li> </ul> <p><i>Nieuw aanbod initiële fase</i></p> <ul style="list-style-type: none"> <li>• Development of two study programs.</li> <li>• Improvement of the bachelor/master enrollments.</li> </ul> <p><i>Nieuw aanbod postinitiële fase</i></p> <ul style="list-style-type: none"> <li>• TSM Business School with a MBA program. The idea was to improve the relationship with TSM Business School but it went the other way around.</li> </ul> <p><i>Modernisering van onderwijs processen</i></p> <ul style="list-style-type: none"> <li>• Problem oriented education, a study program that is a combination of introduction courses combined with integral projects.</li> </ul> <p><i>Kwaliteitszorg</i></p> <ul style="list-style-type: none"> <li>• Development of a good quality system, this went naturally due to visitations.</li> </ul> <p><i>Internationalisering</i></p> <ul style="list-style-type: none"> <li>• Development of an international minor.</li> <li>• International recruitment when the master programs were developed.</li> </ul> <p><i>Streefcijfers</i></p> <ul style="list-style-type: none"> <li>• The development of new study programs as an attempt to counter the decline.</li> <li>• Offering English master programs in order to stimulate the amount of international students. This was not successful in the beginning. Later on this was successful, e.g. with European Studies.</li> <li>• Made changes in the bachelor programs, this with the premise that when there is a better connection between the different courses this will improve the study efficiency of students.</li> </ul>	<ul style="list-style-type: none"> <li>• Based upon enrollments and study efficiency measures. Enrollments and pre-enrollments.</li> <li>• No specific targets, more the idea that I wanted to see improvement.</li> <li>• Special attention to study efficiency of the 'old' study programs, to make sure these students graduated as quickly as possible.</li> </ul>
Faculty B	<ul style="list-style-type: none"> <li>• Dean since July 2004.</li> <li>• Put aside the strategic plan of my predecessor. Developed an own strategic plan.</li> <li>• The education in the faculty was not fully developed at that time. I cannot remember that at the time I came here there was a serious institution policy on that issue.</li> </ul>	<ul style="list-style-type: none"> <li>• Insufficient steering on (study) efficiency.</li> </ul>

	<ul style="list-style-type: none"> <li>• In 2004-2005 no action undertaken upon the strategic plan. At that time other issues had priority; organizational structuring, developing the profile of the faculty, improving the external awareness of the research that the faculty conducted.</li> <li>• Despite the fact (the implementation of) educational objectives was not a major issue we have looked at education.</li> <li>• Paid special attention to the study programs, if they comply with accreditation criteria. Conducted a self-evaluation program and trial visitations.</li> <li>• Paid attention to the structure and the level of the study program.</li> <li>• Little attention for the study efficiency. I have seen the data but did not do anything with it.</li> </ul>
<p><i>Faculty C</i></p>	<ul style="list-style-type: none"> <li>• First dean of the new developed faculty.</li> <li>• The objectives and initiatives undertaken by the faculty were primarily derivatives of the corporate strategic plan.</li> <li>• Efficiency targets were problematic, not realistic. No clear definitions about efficiency. Is also related to the so called 'zachte knip'.</li> </ul> <p><i>Vernieuwing bestaand aanbod</i></p> <ul style="list-style-type: none"> <li>• Possibility for students to follow courses at other universities (3TU).</li> <li>• Implementation of major/minor.</li> <li>• Broad bachelor program.</li> </ul> <p><i>Nieuw aanbod initiële fase</i></p> <ul style="list-style-type: none"> <li>• Accreditation of new master programs.</li> </ul> <p><i>Nieuw aanbod postinitiële fase</i></p> <p><i>Modernisering van onderwijs processen</i></p> <p><i>Kwaliteitszorg</i></p> <p><i>Internationalisering</i></p> <ul style="list-style-type: none"> <li>• Internationalisation in the third phase, many foreign PhD students within the faculty.</li> </ul> <p><i>Streefcijfers</i></p> <ul style="list-style-type: none"> <li>• More study coaching, more assistance. That was a difficult process for me.</li> <li>• I had mixed feelings about the efficiency targets. My opinion is that students have to work a bit harder and they must not hide between the arguments that they have to provide in their living.</li> <li>• More emphasis on monitoring, monitoring of study progress. More personal contact when something went wrong.</li> <li>• In that period the signal function could be a lot better.</li> <li>• Employing teachers of secondary schools for one day a week at the university. To learn what is done at secondary schools.</li> <li>• Teachers to secondary schools, to give trial lessons. In order to get a better transition between secondary schools and universities.</li> </ul> <ul style="list-style-type: none"> <li>• Regarding enrollments targets were formulated. Also regarding foreign enrollments.</li> <li>• Target formulated for German enrollments. This was not a success.</li> <li>• Targets formulated for Dutch enrollments and tried to measure them. Some activities were successful, others were unsuccessful.</li> </ul>

- Better connection with HBO, to recruit students for the master programs.

Source: Conducted face to face interviews (2009)

**F.2: Educational objectives, initiatives, measures & targets at Saxion Hogescholen during the strategic period 2004 – 2008.**

Academie	Objectives & Initiatives	Measures & Targets
Academie A	<p>The objectives and initiatives undertaken by the <i>academie</i> were derivatives of the corporate strategic plan.</p> <ul style="list-style-type: none"> <li>• Increase of the participation rate                             <ul style="list-style-type: none"> <li>○ Participation in the programs of Bèta Techniek</li> <li>○ Setting up projects with secondary schools, making an assignment under supervision of Saxion Hogescholen for example.</li> </ul> </li> <li>• Introduction of the ‘Persoonlijke leerweg’                             <ul style="list-style-type: none"> <li>○ Student coaching</li> <li>○ Pilot for digital portfolio</li> <li>○ Possibilities for students to chose in the 3rd and 4<sup>th</sup> year, offering flexibility.</li> </ul> </li> <li>• Major/minor implementation</li> <li>• Exploration of Asia                             <ul style="list-style-type: none"> <li>○ Partnerships with universities in China and Vietnam.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• No real measures used.</li> </ul> <p><i>Reasons</i></p> <ul style="list-style-type: none"> <li>• Insufficient monitoring at that time. Steering on strategic goals played less that time.</li> <li>• In the developed year plan is stated what you want to do. After a year a management review took place to see if the objectives were achieved.</li> <li>• Hard goals were difficult to measure. More steering on soft goals, to which extend certain goals are realized.</li> </ul>
Academie B	<p><i>Regionale positie</i></p> <ul style="list-style-type: none"> <li>• Cooperation with MBO (ROC van Twente &amp; Aventus) to facilitate smooth transition to HBO.</li> <li>• Field advice committees in contact with companies, to make sure that education fits with the demands from the companies.</li> <li>• Contacts with companies to provide cases and guest lectures.</li> </ul> <p><i>Instroom en doorstroom: Grotere deelname aan het HBO</i></p> <ul style="list-style-type: none"> <li>• MBO enrollments: to take care of a good transition between MBO and HBO. Last year at MBO possible to take HBO courses already, which can lead to a shorter study program.</li> <li>• From HBO to UT: ‘doorstroom’ minor</li> <li>• HBO: Honourprogram</li> <li>• Contacts and cooperation with secondary schools and MBO for student enrollments.</li> </ul> <p><i>De onderwijsvisie</i></p> <ul style="list-style-type: none"> <li>• Internationalization of the education.                             <ul style="list-style-type: none"> <li>○ Educational focus on the world, not a national focus.</li> </ul> </li> <li>• No broad education, acquiring skills in the profession the students are going to exercise.</li> <li>• 50% common education in the propedeuse.</li> <li>• Persoonlijke Leerweg: First two years a standard trajectory. With choices for students in the 3th</li> </ul>	<ul style="list-style-type: none"> <li>• No measures used within the <i>academie</i>.</li> <li>• Measures and targets is something between the dean and the board of directors. The personnel of the <i>academie</i> is provided an ‘internal’ compass to steer the direction the <i>academie</i> wants to go.</li> </ul>



	<p>and 4<sup>th</sup> year.</p> <p><i>Saxion in de wereld</i></p> <ul style="list-style-type: none"> <li>• Every year a quartile with an international theme, throughout the courses.</li> <li>• Internship possibilities in for example South Africa.</li> <li>• International student weeks, students working with students from abroad or vice versa.</li> <li>• Final year: Every study program will have his final year taught in English.</li> <li>• Delegation to China and Korea, trying to build a network.</li> </ul>	
Academie C	<p><i>Regionale positie</i></p> <ul style="list-style-type: none"> <li>• Agreements with companies for practical courses and the development of internships.</li> <li>• Presentations on secondary schools by teachers, to make them enthusiast about the study programs.</li> <li>• Field advice committees in contact with companies, to make sure that education fits with the demands from the companies.</li> <li>• Contacts between teachers and companies for practical courses.</li> </ul> <p><i>Instroom en doorstroom: Grotere deelname aan het HBO</i></p> <ul style="list-style-type: none"> <li>• Contact between secondary schools and the academie.</li> <li>• Developed a project for the transition between MBO and HBO.</li> </ul> <p><i>De onderwijsvisie</i></p> <ul style="list-style-type: none"> <li>• Full implementation of Persoonlijke leerweg, competence orientated education. Including all the necessary instruments (portfolio, study coaching, contract etc.).</li> <li>• Changes made in the curricula, to make these competence oriented.</li> <li>• Persoonlijke leerweg was also reflected in the development of the curricula. Broad curricula in the first two years of the study, after that a specialization needs to be chosen.</li> </ul> <p><i>Saxion in de wereld</i></p> <ul style="list-style-type: none"> <li>• Both in the bachelor and master program there are connections with the profession in the international perspective, international literature.</li> <li>• Facilitation of abroad practical courses.</li> <li>• HRM policy (teachers), use of English and German language.</li> <li>• Goal formulated for the number of foreign students.</li> <li>• Attempts to build an international network. There are contacts with universities in England, Norway and Germany. But not on a structural basis.</li> </ul>	<ul style="list-style-type: none"> <li>• SMART formulated goals in operational plan.</li> <li>• Evaluation of transition between MBO and HBO.</li> <li>• Enrollments from MBO expressed in a percentage</li> <li>• Enrollments from secondary schools were not monitored.</li> <li>• Accreditation</li> <li>• Reactions from field advice committees.</li> <li>• Amount of foreign students expressed in a percentage.</li> </ul>

<p><i>Academie D</i></p>	<p><i>Regionale positie</i></p> <ul style="list-style-type: none"> <li>• Contacts with companies for practical courses.</li> <li>• Focus on the 'city triangle' Deventer, Zutphen Apeldoorn.</li> <li>• Developed a project where people from companies got an internal education function at the <i>academie</i>.</li> </ul> <p><i>Instroom en doorstroom: Grotere deelname aan het HBO</i></p> <ul style="list-style-type: none"> <li>• Recruitment activities; advertisements, contacts with deans of secondary schools.</li> <li>• Collaboration with MBO, to offer students to already follow courses at the HBO.</li> <li>• Study flow; looking if the study program is structured in the right order.</li> <li>• Changes made in the curriculum. Practical courses are positioned different, more choices possible for the student and a heavier curriculum.</li> </ul> <p><i>De onderwijsvisie</i></p> <ul style="list-style-type: none"> <li>• More focus on knowledge, not on competences.</li> <li>• More contact hours with students, knowledge tests.</li> <li>• Limited attention for portfolio, personal development plans, reflection, self-efficacy and group assignments.</li> <li>• Realization of the minor, and other choice options.</li> <li>• Implementation of the Persoonlijke leerweg in a less ideological fashion than proposed.</li> </ul> <p><i>Saxion in de wereld</i></p> <ul style="list-style-type: none"> <li>• Internationalization is of less importance for the <i>academie</i>. More focus on 'internationalization' in the Netherlands. Different cultures.</li> <li>• Contacts for practical courses, for instance in Suriname and Antillen.</li> <li>• Short exchanges with other high schools, for instance in Germany</li> <li>• Cultural trips abroad.</li> </ul>	<ul style="list-style-type: none"> <li>• Saxion Hogescholen wide systems: development of year plans with targets on strategic objectives, which are reviewed in management reports.</li> <li>• Year plan consisted both of hard targets, in terms of numbers. Next to soft targets, the implementation of this or that needs to be done this year.</li> </ul>
<p><i>Academie E</i></p>	<p><i>Regionale positie</i></p> <ul style="list-style-type: none"> <li>• Regarding the recruitment of students there were not much activities deployed. This because it was the only <i>academie</i> who offered the study program.</li> <li>• Contacts with companies and also companies who seek contact with the <i>academie</i>.</li> <li>• For both study programs we have contacts throughout whole the Netherlands.</li> <li>• Established an own foundation where 400 companies cooperate in.</li> </ul> <p><i>Instroom en doorstroom: Grotere deelname aan het HBO</i></p> <ul style="list-style-type: none"> <li>• Little contact with MBO and secondary schools, because of the high amount of applications and the application test. Attention on enrollments therefore not needed.</li> <li>• Study efficiency was problematic. There was no</li> </ul>	<ul style="list-style-type: none"> <li>• Made use of the 'onderwijsvraagfactor', a formula that determines the assigned budget.</li> <li>• Study efficiency rates</li> <li>• Made use of measures, less of goals. This because the use of goals is arbitrary, depends too much on the willingness of the student.</li> <li>• Monitoring of students that fall behind.</li> <li>• Average amount of ECTS achieved.</li> </ul>

obligatory study advice. Next to that, the specific type of students at the *academie* tends to study longer.

- Study coaching intensified, implementation of student monitoring systems.
- Choice for a personal approach, calling all inactive students. They are currently back to studying and graduating.
- Focus on study efficiency instead of propedeuse efficiency.

*De onderwijsvisie*

- It was a new *academie*, due to a reclusterling.
- Restructering of the content of one of the study programs. Making it more relevant, up-to-date, positioned more towards the practice (companies).
- Further development of two-phase model. First two years of supply-oriented education and after that two years of demand-oriented education.

*Saxion in de wereld*

- We were ahead of the Strategische Visie 2004-2008.
- English curriculum.
- Many foreign students recruited.
  - German students (18%)
- International class.
- Many contacts established abroad (e.g. through visiting these high schools and universities), partly with the help of the International Office. Made use of it for example through student exchanges.
- Focus of the study programs was international.

Source: Conducted face to face interviews (2009)

## APPENDIX G: PERFORMANCE INDICATOR DATA FOR THE UNIVERSITY OF TWENTE RELATED TO THE STRATEGIC PERIOD 2000 – 2005

**Figure G.1: Number of registered students at the University of Twente per faculty 2004 - 2007**

	Year	2004	2005	2006	2007
<b>Faculty</b>					
Faculty D		1.548	1.554	1.649	1.654
Faculty C		1.776	1.689	1.500	1.171
Faculty B		1.232	1.420	1.482	1.633
Faculty A		1.809	1.878	1.990	2.280
Faculty E		991	1.132	1.228	1.322
Total amount University of Twente		7.356	7.673	7.849	8.060

Source: Institutional Research University of Twente

**Figure G.2: Total amount of registered students at the University of Twente 1999 - 2007**

Year	Amount	Growth in % compared to 1999
1999	5.740	
2000	5.888	2,58%
2001	6.156	7,25%
2002	6.593	14,86%
2003	7.058	22,96%
2004	7.357	28,17%
2005	7.673	33,68%
2006	7.849	36,74%
2007	8.061	40,44%

Source: Institutional Research University of Twente

**Figure G.3: Total enrolled master students per faculty of the University of Twente 2002 - 2007**

Year	2002	2003	2004	2005	2006	2007
Faculty D			83	144	155	173
Faculty C	9	35	135	93	106	159
Faculty B		1	178	257	186	245
Faculty A	10	80	174	217	231	229
Faculty E	8	64	70	95	102	147
Total amount University of Twente	27	180	640	806	780	953

Source: Institutional Research University of Twente

**Figure G.4: Percentage of students with propeduse of the University of Twente (cumulative %) – cohorts 2000 - 2007**

Cohort	2000	2001	2002	2003	2004	2005	2006	2007
<i>Faculty D</i>								
After 1 year	22%	29%	33%	26%	19%	28%	27%	23%
After 2 years	44%	38%	50%	45%	53%	51%	57%	24%
After 3 years	56%	39%	62%	55%	61%	60%	58%	
<i>Faculty C</i>								
After 1 year	29%	27%	23%	21%	27%	16%	24%	27%
After 2 years	46%	28%	46%	43%	40%	43%	51%	
After 3 years	51%	29%	52%	52%	49%	52%		
<i>Faculty B</i>								
After 1 year	23%	30%	25%	25%	27%	25%	23%	26%
After 2 years	42%	33%	55%	46%	51%	51%	50%	28%
After 3 years	53%	35%	67%	53%	63%	62%	52%	
<i>Faculty A</i>								
After 1 year	21%	25%	24%	22%	18%	22%	22%	23%
After 2 years	42%	29%	50%	43%	43%	47%	41%	

After 3 years	52%	31%	57%	52%	54%	55%		
<i>Faculty E</i>								
After 1 year	38%	39%	43%	38%	30%	24%	21%	29%
After 2 years	45%	42%	55%	51%	47%	41%	40%	35%
After 3 years	53%	42%	61%	61%	51%	52%	43%	

Source: Institutional Research University of Twente

**Figure G.5: Percentage of students with a bachelor degree of the University of Twente (cumulative %) – cohorts 2002 - 2005**

Cohort	2002	2003	2004	2005
<i>Faculty D</i>				
After 3 years		49%	15%	27%
After 4 years		66%		81%
After 5 years		72%	76%	
> 5 years		94%	53%	
<i>Faculty C</i>				
After 3 years	42%	14%	50%	64%
After 4 years	55%	18%	54%	71%
After 5 years	66%	19%	96%	
> 5 years	85%	35%		
<i>Faculty B</i>				
After 3 years	53%	33%	44%	15%
After 4 years	73%	38%	52%	93%
After 5 years	78%	83%	80%	
> 5 years	86%			
<i>Faculty A</i>				
After 3 years	31%	18%	54%	19%
After 4 years	39%	23%	56%	42%
After 5 years	42%	24%	87%	
> 5 years	62%	31%		
<i>Faculty E</i>				
After 3 years	43%		29%	
After 4 years	63%			89%

After 5 years	74%	96%
> 5 years	89%	41%

Source: Institutional research University of Twente

**Figure G.6: Percentage of students with a doctorate degree of the University of Twente (cumulative %) – cohorts 2000 - 2003**

Cohort	2000	2001	2002	2003
<i>Faculty D</i>				
After 4 years	61%	73%	63%	53%
After 5 years		76%	69%	63%
After 6 years		78%	71%	
> 6 years	83%	84%		
<i>Faculty C</i>				
After 4 years		72%	65%	70%
After 5 years			67%	
After 6 years			68%	73%
> 6 years	83%	76%		
<i>Faculty B</i>				
After 4 years	39%	47%	63%	12%
After 5 years	48%	53%	71%	17%
After 6 years	61%	59%	75%	18%
> 6 years	74%	59%		
<i>Faculty A</i>				
After 4 years	33%	59%	44%	79%
After 5 years	50%	74%	56%	86%
After 6 years		78%	58%	
> 6 years	67%	96%	60%	
<i>Faculty E</i>				
After 4 years		88%	71%	33%
After 5 years				
After 6 years				
> 6 years	83%			

Source: Institutional research University of Twente

**Figure G.7: Percentage of students with a master degree of the University of Twente (cumulative %) – cohorts 2002 - 2007**

<b>Cohort</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>
<i>Faculty D</i>						
After 1 year			7%	2%	4%	2%
After 2 years			20%	20%	14%	9%
After 3 years			71%	74%	46%	
After 4 years			90%	90%		
<i>Faculty C</i>						
After 1 year	8%	3%	24%	13%	2%	12%
After 2 years		37%	61%	55%	24%	18%
After 3 years		57%	82%	72%	41%	
After 4 years		74%	86%			
<i>Faculty B</i>						
After 1 year			20%	19%	17%	17%
After 2 years			66%	60%	51%	38%
After 3 years			82%	76%	76%	
After 4 years			86%	84%		
<i>Faculty A</i>						
After 1 year	30%	16%	17%	11%	13%	16%
After 2 years	70%	64%	61%	56%	55%	50%
After 3 years		83%	80%	76%	83%	
After 4 years		86%	87%	90%		
<i>Faculty E</i>						
After 1 year	88%	11%	14%	11%	2%	1%
After 2 years	100%	48%	29%	25%	17%	5%
After 3 years		77%	54%	65%	32%	
After 4 years		83%	89%	85%		

Source: Institutional research University of Twente



## APPENDIX H: PERFORMANCE INDICATOR DATA FOR SAXION HOGESCHOLEN RELATED TO THE STRATEGIC PERIOD 2004 – 2008

**Figure G.1: Amount of enrolled students Saxion Hogescholen per academie 2004 - 2006**

	Year of subscribtion	2004	2005	2006
<b>Academie</b>				
Academie F		331	305	318
Academie A		449	468	487
Academie E		186	217	210
Academie G		337	331	274
Academie H		351	354	309
Academie I		255	238	255
Academie J		523	552	562
Academie B		403	420	407
Academie K		472	507	482
Academie L		466	488	499
Academie C		506	505	506
Academie M		698	684	661
Academie D		221	285	270
Totaal ingestroomde studenten Saxion Hogescholen per academie		5.198	5.354	5.240

Source: Jaarverslag Saxion Hogescholen 2006

**Figure G.2: Percentage of students with propedeuse after 2 years Saxion Hogescholen (target: 70%) - cohorts 2002 - 2004**

	Cohort	2004	2003	2002
<b>Education</b>				
<b>Academie C</b>				
Study program C.1		65%	61%	82%

Study program C.2	80%	74%	84%
Study program C.3			
Study program C.4			
Study program C.5	64%	53%	62%
Study program C.6	48%	70%	63%
<b>Academie B</b>			
Study program B.1	52%	76%	71%
Study program B.2	62%	38%	37%
Study program B.3	52%	58%	24%
Study program B.4	48%	34%	
<b>Academie A</b>			
Study program A.1	31%	37%	35%
Study program A.2	22%	26%	23%
Study program A.3	42%	40%	54%
Study program A.4	28%	36%	42%
Study program A.5	52%	29%	61%
Study program A.6	53%	80%	65%
Study program A.7	35%	75%	72%
Study program A.8	81%	70%	53%
Study program A.9	57%	61%	64%
<b>Academie D</b>			
Study program D.1	57%	63%	65%
<b>Academie E</b>			
Study program E.1	43%	55%	30%
Study program E.2	34%	33%	21%

Source: Jaarverslag Saxion Hogescholen 2006

**Figure G.3: Percentage of fulltime students that is graduated after 5 years Saxion Hogescholen (target 50%) - cohorts 1999 - 2001**

	<b>Cohort</b>	<b>2001</b>	<b>2000</b>	<b>1999</b>
<b>Education</b>				
<b>Academie C</b>				
Study program C.1		65%	52%	56%
Study program C.2		48%	37%	60%
Study program C.3				
Study program C.4				
Study program C.5		41%	69%	57%
Study program C.6				
<b>Academie B</b>				
Study program B.1				
Study program B.2		62%	38%	37%
Study program B.3		46%	49%	54%
Study program B.4				
<b>Academie A</b>				
Study program A.1		60%	71%	71%
Study program A.2		49%	51%	60%
Study program A.3		53%	45%	64%
Study program A.4		44%		
Study program A.5		55%	53%	51%
Study program A.6		38%	47%	50%
Study program A.7		48%	56%	78%
Study program A.8		81%	70%	53%
Study program A.9		48%	63%	55%
<b>Academie D</b>				
Study program D.1		45%	49%	52%
<b>Academie E</b>				

<i>Study program E.1</i>	29%	43%	33%
<i>Study program E.2</i>	42%	63%	56%

**Source: Jaarverslag Saxion Hogescholen 2006**