Influence of an American parent on Management Control Systems in a Dutch subsidiary

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Summary

In this study the influence of an American parent on the Management Controls Systems (MCSs) in a Dutch subsidiary is explored. MCSs refer to all systems, rules, practices, values and other activities management puts in place in order to direct employee behavior. Different individual MCS components have been investigated solely, but this study explores MCSs by a fairly new approach: MCSs as a whole package. Also the comparison between MCSs in Dutch companies and Dutch subsidiaries of American parents is new. The MCS packages are evaluated on their applied configurations with MCS components and the tightness of applied MCS components.

Research suggests that American companies tend to apply MCSs which are more oriented on hard controls and Dutch companies apply MCSs which are more oriented on soft controls. There are also indications that American companies apply tighter controls than Dutch companies do. This has led to the following two hypotheses:

> *H1: Dutch subsidiaries with a US parent use a configuration of MCSs which is more oriented on hard controls and Dutch companies with a Dutch parent use a configuration of MCSs which is more oriented on soft controls.*

> *H2: Dutch subsidiaries with a US parent use a configuration of MCSs which applies tighter controls than Dutch companies with a Dutch parent do.*

These hypotheses are investigated by conducting interviews with a member of top management of four companies; two Dutch companies and two Dutch subsidiaries with an American parent. It were structured interviews for which I translated an extensive questionnaire of Malmi and Sandelin (see Annex 1). The interviews were audiotaped and transcribed verbatim. Subsequently an analysis was performed to check which MCS components are applied in both groups of companies and its importance in their configurations, and the extent of tightness of applied MCS components is determined.

The findings show that Dutch subsidiaries with an American parent attach indeed more importance to the hard controls in their package of MCSs and the Dutch companies attach more importance to the soft controls in their MCS package. Regarding the tightness of applied controls the findings show that at least Dutch subsidiaries with an American parent apply tight controls, but because of ambiguous results within the two Dutch companies, it became not clear whether these are also applied tighter than in Dutch companies.

The main contribution of the findings in this study is that national culture has a clear impact on the package of MCSs within a company, and subsidiaries seem to adjust their package of MCSs in the direction of the national culture of the parent from the moment of acquisition. The main implication is that one can realize that there are probably differences in the package of MCSs when it concerns distinct 'national cultures', and what these differences comprise, already before an acquisition. Companies can in this way acquaint oneself of expected upcoming changes in the package of MCSs already before the acquisition. Also in all other possible business relations including cross national cultures, it can be wise to take advantage of knowledge of existing differences in the packages of MCSs in both companies. In companies in which the package of MCSs does not prove to be effective, this research can be used as a support in the search, adaptation or application of other or tighter MCSs which fit better with the company, taking into account the 'national culture' of both parent company and subsidiary. Future research should focus on increasing the sample size to test the findings in this study.

Samenvatting

In dit onderzoek is de invloed van een Amerikaanse moedermaatschappij op de Management Controle Systemen (MCSs) in een Nederlandse dochter onderzocht. Onder MCSs verstaan we alle systemen, regels, gebruiken, waarden en andere activiteiten die het management instelt om gedrag van medewerkers te beïnvloeden. Verschillende individuele MCS componenten zijn afzonderlijk onderzocht, maar dit onderzoek bekijkt MCSs vanuit een vrij nieuwe benadering: MCSs als een totaal pakket. Ook de vergelijking tussen MCSs in Nederlandse bedrijven en Nederlandse dochters met een Amerikaanse moedermaatschappij is nieuw. De MCS pakketten zijn beoordeeld aan de hand van de toegepaste configuraties van MCS componenten en de 'tightness' van toegepaste MCS componenten.

Eerder onderzoek duidt erop dat Amerikaanse bedrijven de neiging hebben om MCSs toe te passen die meer gericht zijn op 'hard controls' en dat Nederlandse bedrijven MCSs toepassen die meer gericht zijn op 'soft controls'. Er zijn ook aanwijzingen dat Amerikaanse bedrijven de controles strakker toepassen dan Nederlandse bedrijven. Dit heeft geleid tot de volgende twee hypotheses:

> *H1: Nederlandse dochters met een Amerikaanse moedermaatschappij passen een configuratie van MCSs toe die meer gericht is op 'hard controls' en Nederlandse bedrijven met een Nederlandse moedermaatschappij passen een configuratie toe die meer gericht is op 'soft controls'.*

> *H2: Nederlandse dochters met een Amerikaanse moedermaatschappij passen een configuratie van MCSs toe met strakkere controles dan Nederlandse bedrijven met een Nederlandse moedermaatschappij.*

Deze hypotheses zijn onderzocht door interviews te houden met iemand van het top management van vier bedrijven; twee Nederlandse bedrijven en twee Nederlandse dochters met een Amerikaanse moedermaatschappij. Het waren gestructureerde interviews waarvoor ik een vertaling heb gemaakt van een uitgebreide enquête van Malmi en Sandelin (zie Annex 1). De interviews zijn opgenomen en woordelijk getranscribeerd. Vervolgens is een analyse gemaakt van de toegepaste MCS componenten in beide groepen bedrijven, met daarbij het belang dat de respondenten er aan hechten binnen de configuratie. Ook is de mate van 'tightness' van de toegepaste MCS componenten bepaald.

De resultaten tonen aan dat Nederlandse dochters met een Amerikaanse moedermaatschappij inderdaad meer belang hechten aan de 'hard controls' binnen het pakket MCSs en dat de Nederlandse bedrijven meer belang hechten aan de 'soft controls' binnen het pakket MCSs. Met betrekking tot de 'tightness' van toegepaste controles tonen de resultaten in ieder geval aan dat Nederlandse dochters met een Amerikaanse moedermaatschappij strakke controles toepassen, maar vanwege niet-eensluidende resultaten bij de Nederlandse bedrijven is het niet duidelijk geworden of deze ook daadwerkelijk strakker zijn dan in Nederlandse bedrijven.

De belangrijkste bijdrage van de resultaten in dit onderzoek is dat de nationale cultuur een duidelijke invloed heeft op het pakket MCSs binnen een bedrijf en dat dochters hun pakket van MCSs aan lijken te passen in de richting van de nationale cultuur van de moedermaatschappij vanaf het moment van overname. De belangrijkste implicatie is dat men zich al vóór een overname vanuit een andere nationale cultuur bewust is dat er mogelijk verschillen zijn in het pakket MCSs en wat deze verschillen zijn. Bedrijven kunnen zich op deze manier al vóór de overname voorbereiden op te verwachten veranderingen in het pakket MCSs. Ook in alle andere zakelijke relaties tussen verschillende nationale

culturen kan het verstandig zijn om te profiteren van kennis van bestaande verschillen in de pakketten met MCSs in beide bedrijven. In bedrijven waarin het pakket MCSs niet effectief blijkt kan dit onderzoek gebruikt worden als hulpmiddel bij het zoeken naar en de aanpassing of toepassing van andere of strakkere MCSs die beter passen bij het bedrijf en rekening houden met de nationale cultuur van zowel moedermaatschappij als dochter. Verder onderzoek zou zich moeten richten op het uitbreiden van de steekproef om de bevindingen uit dit onderzoek te testen.

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Table of content

1. Introduction

This thesis gives insight in the research that I have performed to conclude the Master of Industrial Engineering & Management. The research sheds light on the impact of an acquisition of a Dutch company by an American parent on the applied package of Management Control Systems. In this first chapter some background information to the topic and this research is presented. Also the reason to start this research is set out, together with the resulting central research question. As a final section there is an overview of the outline of this thesis.

1.1 Research context

Large companies exist of many employees who ideally work hard and harmoniously together in the interest of the company to achieve common organizational goals. In the real world, interests of the company do not necessarily match with interests of the employee, so management cannot be sure, by nature, that employees will work hard and harmoniously together on common organizational goals. To direct employees in the direction of the interest of the company, management uses different kinds of Management Control Systems, furthermore called MCSs. So, an MCS is a certain tool which management of a company uses to ensure that employees do the things that are good for the company to achieve its goals. All these MCSs together form the total package of MCSs which management of the company applies.

Although the idea of MCSs operating as a package exists for over 30 years (Otley, 1980), research on MCSs has focused only on separate components of the whole package of MCSs, which is present in most companies. This is useful if one assumes that all components work independently and do not affect each other. In recent years, however, negative implications of studying components solely become more and more clear (Chenhall, 2003; Dent, 1990; Fisher, 1998) and calls for systematic research on the MCSs as a package approach are inherent (Chenhall, 2003; Dent, 1990; Fisher, 1998; Flamholtz, Das, & Tsui, 1985; Otley, 1980).

This research has been started as a follow up on a research performed by the Finnish researchers Teemu Malmi and Mikko Sandelin, who wanted to make a start on the systematic research of MCSs as a package. After performing their research on existing configurations of separate MCS components within the total MCS package in large companies in Finland, and the effectiveness of these configurations, they wanted to generate more data and check the international relevance. Therefore they invited other European researchers to perform the same research in their home country.

Initially the University of Twente accepted the invitation and started up the research in the Netherlands, in which the idea was that a group of master students took this as subject of their Master thesis and by this way together gather the information for the Dutch sample for the international project. This Master thesis was started as being the first of the total group. However, during the gathering of data, the University of Twente decided to stop with the joint international project, but the students already started with their Master thesis could finish it with the same subject.

1.2 Research question

As mentioned, past research was mainly focused on separate components of the whole package of MCSs in companies. In practice, management of a company can choose to apply different kinds of MCSs, and even combine them, and in this way the total package of the company does exist of a certain configuration. Within this configuration, management can choose to give more focus to one (group of) MCS(s) than to another. Apart from that, from past research there exists evidence that applied MCSs

differ with the national culture of the country where the company is located (e.g. Carr & Tomkins, 1998; Endenich, Brandau, & Hoffjan, 2011; Hofstede, 1980; House, Hanges, Javidan, Dorfman, & Gupta, 2004; Jansen, Merchant, & Van der Stede, 2009). Where American companies are more prone to implement hard controls, Dutch companies are more focused on soft controls. Also, although there is evidence from literature that there are countries in which controls are implemented even tighter than in America (Harrison, McKinnon, Panchapakesan, & Leung, 1994), American companies implement these controls still tighter than Dutch companies do, where Dutch companies choose for a more loose implementation. It can be interesting to see what happens when these two national cultures meet each other, or in other words, when there is a clash of these two national cultures. Therefore, we want to explore what happens when a Dutch company is taken over by an American parent. What will be the effect on the package of MCSs in those companies? Stay the MCSs accommodated to the Dutch national culture? Or do we see an American package of MCSs in those companies that are taken over by an American parent? Or do the packages 'melt' together and create a new hybrid package in which both cultures are represented? This has resulted in the following central research question:

"What is the impact of the acquisition of a Dutch company by an American
parent with respect to the package of Management Control Systems?"

Aim is to learn more about the implemented packages of MCSs by management of companies with a Dutch origin and of originally Dutch companies which are meanwhile acquired by an American parent. It is assumed, and also suggested by some literature (Van der Stede, 2003), that foreign subsidiaries adopt the design of their parent. Therefore, we want to compare the configuration of MCSs within Dutch companies with the configuration of MCSs within companies in the Netherlands, but which are meanwhile acquired by an American parent. In this way, we want to explore whether the configurations of MCSs of these groups of companies differ and whether these differences correspond with the expected characteristics of MCSs of American and Dutch companies that are already known in literature. To test this central research question, I translated the fairly extensive questionnaire (see Annex 1) that is designed by Malmi & Sandelin, because they enclosed all components of the MCS package in a comprehensive way, which is very useful in this exploratory research.

1.3 Theoretical relevance

As already stated, the MCSs as a package approach is still fairly new and unspoiled and so this study will perhaps only contribute a very small piece to the 'ultimate challenge' to find for any company, that meets certain contingencies, the best, most effective, configuration of MCSs. The idea is that several contingencies might lead to different configurations. Contingencies that can be thought of are, among many others, employed strategy, size of the organization, organizational structure, external environment or national culture. In this research the focus is on the national culture contingency. In the 'ultimate challenge', national culture is only one of the contingencies, and the Dutch and American cultures are just two national cultures. There is a lot of additional research needed, but the Finnish researchers Malmi and Sandelin broke the ice and made a promising start. Although the University of Twente has withdrawn from the international research project, this research might be a contribution to the research field. When we learn more about the implemented packages in many companies, with its own contingencies, and eventually the differences between them, it can be examined which configurations are most effective for these kinds of companies, or even for every kind of company.

1.4 Structure of Master thesis

This report started with an introduction of the research project. This first chapter contains some background information about the theme of this research project and the motive for starting this research project. Also the central research question for this research project was presented.

Chapter 2 contains a review of literature that currently exists with relation to the theme of this research project. It explains what MCSs are and where these are used for. The concepts of hard versus soft control and the tightness of control are explained. In Section 2.6 the concept of MCSs as a package is discussed in more detail. Subsequently the link to the research question is made by describing how the different components of the MCS are expected to be applied in the USA and in the Netherlands, which will be concluded with two hypotheses.

Chapter 3 discusses the way the research is designed and performed. The main sources of information for our research are interviews with a representative of top management of large companies. The basis for these interviews is a questionnaire, which is described in more detail in this chapter. Also the way in which the data will be analyzed is part of this chapter.

In Chapter 4 follows an analysis of the data gathered during the interviews. Which configurations of MCS components are present in the investigated companies and how are the MCS components applied?

Chapter 5 gives answer to the research question by comparing the findings in the Dutch companies and the findings in companies in the Netherlands with an American parent, followed by a discussion on the conclusions. Since this is only an exploratory research, we also give suggestions for further research.

The annexes include the questionnaire in Dutch and a table with facts and figures about the companies and corresponding respondents that are part of this research.

2. Theoretical framework

2.1 Introduction

In Chapter 1 we mentioned that this study is about the differences in the packages of MCSs between Dutch companies and companies in the Netherlands with an American parent. This will be investigated with respect to the dimensions hard versus soft control and the degree of tightness. Therefore, this chapter will explain the need for MCSs and it makes clear what MCSs really are. Also the two dimensions that are used for the analysis of existing MCSs within the organizations that are subject of this research are explained in more detail. The first dimension is the kinds of MCSs that are applied, either the more soft controls or the more hard controls. The second dimension, if the existing MCSs are applied either tight or loose, is explained for both the hard as well as the soft controls. Thereafter, we explain the concept of MCSs as a package. In a final section the expectations of the differences (or similarities) between the two groups of companies in this study are discussed, based on known literature. This results in two hypotheses.

2.2 Why Management Control Systems?

Within companies there is a relationship between employer and employee. All employees usually have their own tasks to perform and have to do it in the interest of the company. The interest of the company may comprise various objectives, e.g. performing the tasks as quickly as possible, as good as possible, as cheaply as possible or a combination of objectives. This interest of the company does not always correspond with the interests of the employee. The principal agent theory (Jensen & Meckling, 1976) describes the fact that an employee by nature always primarily focuses on his own welfare. This own welfare of the employee does not necessarily always correspond with that of the company. A problem that occurs here is the information asymmetry of the employee toward his employer regarding the tasks he has to perform. An example is that when an employee is able to perform a task in three hours, while his manager, because he has not the same information, has allocated a time limit of four hours to the task. In this case the employee has one extra hour to act in his own interest rather than to act in the interest of the company. However, it would be more efficient for the company, and thus better, to complete the task in three hours. An MCS aims to influence the behavior of employees in a direction so that it is in the interest of the company.

Merchant and Van der Stede (2007, pp. 8-11) discuss the need for MCSs from another, broader perspective than the principal agency theory. According to them there are three main categories of causes which make it necessary to implement MCSs, namely:
- Lack of direction: Employees do not know what is expected from them by the company.
- Lack of motivation: Naturally the interests of the company do not necessarily coincide 100% with the interests of the employee, who primarily acts to his own welfare. Despite the fact that the employee knows what is expected, he does not do that.
- Personal limitations: An employee is by certain personal limitations not able to perform the task as expected. Examples of limitations can be a lack of intelligence, knowledge or experience.

To solve the mentioned problems or to reduce them as much as possible, companies use MCSs.

2.3 What are Management Control Systems?

MCSs are defined in known literature in various ways and under different 'synonyms'. Flamholtz et al. (1985, p. 36) define organisational control systems as "techniques and processes to achieve goal congruence which may be designed for all levels of behavioural influence: individuals, small groups,

formal subunits and the organization as a whole". Abernethy and Chua (1996, p. 573) define an organizational control system as comprising "a combination of control mechanisms designed and implemented by management to increase the probability that organizational actors will behave in ways consistent with the objectives of the dominant organizational coalition". Malmi and Brown (2008) use the following definition of management control systems, which will be used in this study:

> *"Those systems, rules, practices, values and other activities management put in place in order to direct employee behaviour should be called management controls. If they are complete systems, as opposed to a simple rule, then they should be called MCSs."*

Two things in this definition are important to notice: 'the controls should be put in place in order to direct employee behavior' and 'only complete systems of those controls may be qualified as an MCS'. From this definition, Malmi and Brown (2008) have developed a framework with the five different MCSs that are distinguished by them. These distinguished MCSs are Cultural Controls, Planning Controls, Cybernetic Controls, Reward and Compensation Controls, and Administrative Controls (see also Figure 1). These controls and the framework will be explained further in Chapter 3, because these form the basis for the questionnaire of Malmi and Sandelin, which we use in our method for collecting data.

2.4 Hard versus soft control

As stated in the introduction, the first dimension that we use for the analysis of existing MCSs within the organizations that are subject of this research is if companies apply either hard controls or soft controls. For comparing purposes during the analysis of MCSs within companies it is better to use a two-dimensional setting instead of a multidimensional setting, like, for example, the five control components of Malmi and Brown (2008). Therefore, we want to introduce the distinction between hard and soft controls which is particularly used by Fee et al. (2011). Where Fee et al. (2011) call the hard controls important and central, they also state that hard controls alone represent a limited perspective and that therefore soft controls are critical to complete this. Suutari and Tahvanainen (2002) use the classifications of hard and soft in relation to goals in performance management and state that the use of hard goals must be tempered with soft goals for a more accurate evaluation of employee performance.

According to Fee et al. (2011) hard controls are usually quantifiable and can be objectively measured, like productivity. Those are more 'tangible' and thus 'easier to deploy'. Hard controls are also characterized as 'formal controls'. The research of Fee et al. (2011) is about performance management and in that field they use goal-setting and performance evaluation as the hard control components.
Soft controls have characteristics like qualitative and difficult to measure and collect data on, because these are about dimensions like relationships, communication and role commitment. Difficulties that can arise here due to the subjective character are rater errors, biases and cultural differences (of rates, raters and users of the data) (Gregersen, Hite, & Black, 1996). Fee et al. (2011) describe the soft controls as particularly valuable tools for transferring organizational values and norms. It plays an important role in socializing vision, values and culture. Analogous and opposed to the hard controls, they call the soft controls 'less tangible' and use the qualification 'informal'. Regarding the field of performance management they use training and mentoring as the soft control components.

Merchant and Van der Stede (2007) use another framework: their object of control framework. In this framework they distinguish three different categories of objects on which control can be exercised: results, actions and personnel/culture. If we compare this distinction of Merchant and Van der Stede (2007) with the hard and soft control distinction of Fee et al. (2011), we can roughly say that the results and action controls of Merchant and Van der Stede (2007) are similar to the hard controls of Fee et al.

(2011), and that personnel/cultural controls are similar to the soft controls. This will be confirmed again in Section 3.4.2.

2.5 Tightness of control

2.5.1 Introduction

Another way of looking at MCSs is if these are applied either tight or loose. All different kinds of MCSs that exist in an organization, both hard controls as well as soft controls, can be applied in either a tight or a loose way. As mentioned before in Section 2.2, MCSs are used to direct employees to act in the interests of the organization and in this way increase the likelihood that the objectives of the organization are achieved. The benefit of any MCS is derived from the increase in the likelihood that the organizational objectives will be achieved relative to what could be expected if the MCS were not in place. This benefit can be described in terms of MCS tightness (or looseness), because tighter MCSs should provide a higher degree of certainty that employees will act as the organization wishes (Merchant & Van der Stede, 2007, p. 118).

Merchant and Van der Stede (2007) explain the concept of tightness on the basis of their object or control framework and, especially for results and action controls (hard controls), they present criteria to determine whether controls can be classified as tight. The better these criteria are met, the higher the degree of tightness; the fewer controls meet these criteria, the looser controls are. Hereafter is set out what the criteria are for hard and soft controls to become tight. At the end of this section these criteria are summarized in Table 1.

2.5.2 Application of tight hard controls

Merchant and Van der Stede (2007) mention the requirements for the desired results or actions belonging to the abovementioned hard controls to become tight as: (1) congruence, (2) specificity and timeliness, (3) effectively communicated and internalized, and eventually (4) complete. *Congruence* is about choosing the measurable performance dimensions that are good indicators of the organization's "true" objectives, so that when performing well on these indicators or executing these actions it is good for the organization. *Specificity and timeliness* means that targets for results should be disaggregated and quantified, the desired actions should be defined adequately unambiguous, e.g. in the form of work rules or policies as opposed to broad guidelines or vague codes of conduct, and both must be described in relatively short increments of time. For the hard controls to be tight, the performance targets and the desired actions must also be *effectively communicated and internalized* by those charged with their accomplishment. The final requirement for tight hard control that is defined by Merchant and Van der Stede (2007), *completeness*, is only important if control is affected exclusively through results controls or action accountability controls. Completeness means that results areas or actions defined in the MCS include all areas in which the organization desires good performance and for which the employees involved can have some impact. In a hybrid MCS, made up of some combination of results, actions and personnel controls, the definition of results areas does not have to be complete. However, managers must take care to ensure that all significant potential control problems are covered in some manner by some type of control (Merchant & Van der Stede, 2007, p. 120).

After setting out what is needed in the definition of tight results controls or action accountability controls, there are also requirements regarding measurement of results and tracking of actions afterwards. These requirements are (1) congruence, (2) precision, (3) objectivity, (4) timeliness, and (5) understandability. A results control system that is used to apply tight control requires excellence in all of these measurement qualities. If the measurements fail in any of these areas, the control system cannot

be characterized as tight, because behavioral problems are likely (Merchant & Van der Stede, 2007). *Congruence* in this case means that the performance measures are fed with the right data to measure the results as intended and that the action tracking system reports about the performed actions as supposed. *Timeliness* in this case means that feedback must be given within a short time after results were achieved or actions had taken place.

The controls are likely to be tighter if rewards (or punishments) that are significant to the employees involved are directly and definitely linked to accomplishment (or nonaccomplishment) of desired results or actions. A direct link means that accomplishment of results or actions translates automatically into rewards, with no buffers and no ambiguity. A definite link between results or actions and rewards means that no excuses are tolerated (Merchant & Van der Stede, 2007).

Two other possible instruments of hard control are (1) behavioural constraints and (2) pre-action reviews. According to Merchant and Van der Stede (2007) these controls should be considered tight only if it is highly likely that employees will engage consistently in all of the actions critical to the operation's success and will not engage in harmful actions. For *behavioural constraints* this involves that these are (1) reliable and (2) restrictive. This can be accomplished by physical constraints, like simple locks on desks or elaborate software and electronic security systems, or administrative constraints, like restricting decision making to higher organizational levels and separating sensitive duties among a larger number of employees. Administrative constraints provide only tight control if it can be assumed that higher-level personnel can be expected to make more reliable decisions than lower-level personnel and if it can be guaranteed that those who do not have authority for certain actions cannot violate the constraints that have been established. *Pre-action reviews* can lead to tight MCSs if the reviews are (1) frequent, (2) detailed and (3) performed by diligent, knowledgeable reviewers (Merchant & Van der Stede, 2007).

2.5.3 Application of tight soft controls

As a final category of control systems Merchant and Van der Stede (2007) define when the soft personnel/cultural controls can be considered as tight. They state that "the effectiveness of the steps that might be taken to increase the strength of personnel controls is usually difficult to assess. In general, personnel control effectiveness is a function of the knowledge available to link the control mechanism with the solution of the existing control problems. Often the information about how well factors such as education, experience, and personality predict performance is not reliable". So, although it is difficult to measure the effect related to these personnel controls, it can be assumed that the more of these controls are applied, the tighter the soft controls become, but it remains difficult to judge if it is sufficient for the system as a whole to become tight.

"Cultural controls, on the other hand, are often powerful and stable. Culture involves a set of shared beliefs and values that employees use to guide behavior" (Merchant & Van der Stede, 2007). Except for companies with strong cultures, tight control probably cannot be affected with the use of personnel/cultural controls alone. Most personnel controls and cultures are unstable. They can break down quickly if demands, opportunities or needs change and they provide little or no warning of failure (Merchant & Van der Stede, 2007).

Type of control	What makes It tight
Results or action accountability	Definition of desired results or actions: • Congruent with true organizational skills • Specific • Effectively communicated and internalized • Complete (if accountability emphasized) Measurement of results or tracking of actions: • Congruent • Precise • Objective • Timely • Understandable Rewards or punishments: • Significant to person(s) involved • Direct and definite link to results or actions
Behavioral constraints	Reliable Restrictive
Preaction reviews	Frequent Detailed Performed by informed person(s)
Personnel/cultural controls	Certainty and stability of knowledge linking personnel/cultural characteristics with desired actions

Source: K. A. Merchant, *Modern Management Control Systems: Text and Cases* (Upper Saddle River, NJ: Prentice Hall, 1998), p. 166.

Table 1: A summary of the characteristics that make a control "tight", Merchant and Van der Stede (2007)

2.6 Management Control Systems as a package

In trying to make the chance of achieving the company's objectives as large as possible, there are usually many different things for management to control. These can all require a different approach. Moreover, as explained in the previous section, it is not always possible to accomplish sufficiently tight control, or in other words to have enough certainty that the company's objectives will be achieved, with just one kind or one component of MCSs. Therefore, companies usually make use of a complete package consisting of a combination of different MCSs in a certain configuration. This is described by Malmi and Brown (2008) as "the concept of a package points to the fact that different systems are often introduced by different interest groups at different times, so the controls in their entirety should not be defined holistically as a single system, but instead as a package of systems."

Within this configuration, in their dedication to achieve the company's objectives, management can choose to give more focus to one component than to another, in a way that the components will reinforce each other. Given that firms are different, which is represented in the many contingencies, already described in Section 1.3, and therefore have different things to control, indicates that these companies may have a different focus within the overall package of MCSs. Although there exists already a lot of research on the effects of various contingencies on the separate components that are possible within the package (e.g. Abernethy, Bouwens, & van Lent, 2004; Bouwens & Van Lent, 2007; Moers, 2006), this is still largely lacking in terms of effects on the implemented total package. Or, as Malmi and Sandelin (2010) write in their research proposal for the international research after MCS packages: "Mediating variable(s) between a MCS and a contingent factor(s) has been studied, but less by

identifying these variables from the management accounting contingency framework (Otley, 1980) or MCS frameworks (e.g. Simons, 1995; Merchant & Van der Stede, 2007; Malmi & Brown, 2008)." This despite the fact that it was Otley (1980) who already introduced the concept of MCSs as a package in order to put management accounting in that context. Also subsequent publications (Chenhall, 2003; Dent, 1990; Fisher, 1998; Flamholtz, et al., 1985) were devoted to describing the concept of MCSs as a package and they called for systematic research, but it is still lacking on this topic.

With the concept of MCSs as a package in mind, looking back at the previous section about tightness of control, it is important to note that the presence of a single example of tight or loose control does not necessarily make the entire package of MCSs tight (loose). It usually just makes the package tighter (looser). It is possible that with the malfunction of an intended tight or loose control the tightness of the entire package of MCSs is poisoned, or as Merchant and Van der Stede (2007, p. 129) state "an inappropriate use of controls can cause any of a number of harmful side effects". Still, in general, the more examples of tight (loose) control an organization holds, the more tight (loose) the package of MCSs is likely to be.

2.7 Expectations about Dutch versus American Management Controls Systems packages

The picture about differences (or similarities) between MCSs in Dutch and American companies with respect to the dimensions hard versus soft control and tightness of control in known literature is not complete in the sense that these topics are not treated for all distinguished MCS components, and in particular not in comparisons between exactly these two countries. Therefore, expectations about differences (or similarities) must largely be drawn from studies on countries/regions that are widely considered as similar to the countries of this research. Important research in the field of national cultures was done by Hofstede (1980, 1991) and later on by House et al. (2004) with their GLOBE project. Hofstede (1980) performed a comprehensive research in 40 independent nations worldwide over a period of 6 years regarding its national cultures, over, according to him, the four characterizing dimensions (Power Distance, Uncertainty Avoidance, Individualism-Collectivism, Masculinity-Femininity). In this way he tried to make national culture measurable, and subsequently also be able to compare national cultures with each other. Another aim was to find out the differences in national culture between countries and see whether there exist clusters of countries with comparable national cultures to possibly be able to explain the existing differences in applied management theories in this way. These clusters appeared in his results and he calls this result as a "composite set of cultural maps of the world" (Hofstede, 1980). Based on his findings, Hofstede (1980) expects that companies that are settled in multiple countries and are applying the same management theories worldwide, in the parent company as well as in its subsidiaries, can have different effects due to different national cultures. He mentions in particular: "typical universal policies that may work out quite differently in different countries are those dealing with financial incentives, promotions paths, and grievance channels." Later, Hofstede (1991) added a fifth dimension (Long- versus Short-Term Orientation), based on Michael Harris Bond's team research in 23 countries worldwide, using the Chinese Value Survey of the Chinese Culture Connection (1987). Hofstede (1991) performed additional research including the fifth dimension and added 13 countries or regions to his initial 40 countries.

The GLOBE research program of House et al. (2004) is a long-term programmatic research effort in 62 countries worldwide, designed to explore the fascinating and complex effects of culture on leadership, organizational effectiveness, economic competitiveness of societies, and the human condition of members of the societies studied (House, et al., 2004). The major purpose of the Project GLOBE was to increase available knowledge that is relevant to cross-cultural interactions. The GLOBE study was designed to replicate and expand on Hofstede's (1980, 1991) work, and to test various hypotheses that

had been developed, in particular, on leadership topics. Unlike Hofstede, the GLOBE project questioned the five dimensions of Hofstede (1980, 1991) and produced a set of nine culture dimensions, namely Uncertainty Avoidance, Power Distance, Institutional Collectivism, In-Group Collectivism, Gender Egalitarianism, Assertiveness Future Orientation, Performance Orientation, and Humane Orientation. An important product of the GLOBE research project was a division of the participating societies in 10 cultural clusters, based on similarities in cultural values and beliefs[1]. Societies that belong to the same cultural cluster have the greatest cultural similarity.

Although there is still debate on these studies (e.g. Hofstede, 2006, 2010; Shi & Wang, 2011), this is mainly focused on the design of the studies, in particular on the choice of the cultural dimensions, that can have implications for the results. However, for the purpose of our kind of study, it is widely accepted that America can be considered to be part of the Anglo-American countries[2] (see Endenich, et al., 2011, notes p.378) and the Netherlands can be considered to be part of the Western-European countries[3] (see Endenich, et al., 2011, notes p.378), where Great Britain is sometimes considered to be part of the Anglo-American group and sometimes also to the Western-Europe group. For this research Great Britain is therefore only used as a country to compare with the Netherlands, if it was part of a comparative study between more Anglo-American countries and one or more Western-Europe countries.

According to Van der Stede (2003, p. 280), in the design of MCSs in foreign business units, there is only a weak effect of the national culture of the business unit and significant influences of the parent company. He performed his research in twelve countries with among others Great Britain, Canada and the Netherlands. Therefore it can be expected that, although there is also evidence that, in general, MCSs converge between countries (Granlund & Lukka, 1998; Sheridan, 1995; Shields, 1998), in Dutch subsidiaries of American companies the configuration of MCSs show the characteristics of the configuration of its American parent instead of a configuration which is adjusted to the Dutch national culture. This justifies our research method, as described in Chapter 3.

In known literature we found one, recent, comparative study that directly investigates the differences in MCSs between the two countries of this study, namely America and the Netherlands. Jansen et al. (2009) found in their study on incentive compensation that, compared to US firms, Dutch firms are much less likely to provide their managers with incentive compensations in any form. If, by exception, there are incentive compensations provided at all in Dutch firms, the differences to US firms are significant. US firms provide larger incentives and more likely base them on summary financial measures, particularly net profit, which they call a 'hard' performance measure. Dutch firms base their bonus awards on other performance measures, most commonly sales in units, which is a 'softer' performance measure, because performing well on this does not necessarily imply that the manager contributes to the company's result. They also found that where US firms are more likely to use monetary stimuli, which have a more short-term effect, in Dutch firms stimuli like career-opportunities (training, promotion) are applied, which have a longer-term effect. Also these differences in types of

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[1] Anglo Cultures (i.e. England, Australia, South Africa (white sample), Canada, New Zealand, Ireland, United States), Latin Europe, Nordic Europe, Germanic Europe (Austria, German-speaking Switzerland, Germany, The Netherlands), Eastern Europe, Latin America, Sub-Sahara Africa, Arab Cultures, Southern Asia, Confusian Asia.

[2] Australia, Great Britain, Canada, New Zealand and the US. (Endenich et al., 2011, notes p.378)

[3] We use Western Europe as a comprehensive term for industrialised European countries including Scandinavia, Southern European countries and Great Britain but excluding the Eastern European transitional economies. (Endenich et al., 2011, notes p.378)

stimuli indicate, according to Fee et al. (2011), towards hard controls in American companies and soft controls in Dutch companies.

The difference in focus on long- versus short-term performance between these two countries, or regions to which they belong, is also found in other studies. The given reasons that should explain the differences in focus on long- versus short-term performance might suggest reasoning for the need, and therewith existence, of hard or just soft controls in these countries.

A study of Carr and Tomkins (1998), including Great Britain, United States, Germany and Japan, concluded that companies in Germany and Japan apply formal strategy and control approaches, which reflect a long-term orientation. Contrary, companies in the Anglo-American countries Great Britain and United States apply a strong financial control style and a short-term performance orientation is prevalent. As an explanation, they give various contextual differences; (1) German and Japanese companies are in a more stable economic context, characterized by low inflation and interest rates, that lead to less short-termist pressures, (2) German and Japanese companies have close relationships with financial institutions that render them less subject to stock market pressures or to any threat of acquisition, which lead to less pressure to maximize short-term profits and are freer to invest long-term, (3) for German and Japanese companies the internal labour market provides the necessary skills, motivation and flexibility, whilst increased wage levels and increasing demands for top quality goods create economic incentives to invest, (4) Anglo-American companies are more subject to pressures (especially short-term pressure) for performance against financial and economic criteria and, hence, are oriented to those performance measures.

From the difference in focus on long- versus short-term performances, it possibly can be deduced that German companies have more emphasis on the soft controls than the Anglo-American countries, because these soft controls are important for a stable long-term performance, since these are aimed at the personnel and the culture within the company, which is by definition something that focuses on the longer term. This does, however, not mean that the hard controls have no importance, but the focus on these hard controls might be more evident in the Anglo-American countries, also because those companies must rely more on these hard controls, like planning and the cybernetic controls, to be able to plan and check for the short-term results. For long-term results the hard controls are also needed, but these might need less emphasis on a day-by-day basis.

Since Germany belongs to the same group of Western-European countries as the Netherlands, we might expect that these findings of differences in focus on long- versus short-term performance, and accordingly the application of hard and soft control, between United States and Germany also hold for the Netherlands compared to the United States.

The focus on long- versus short-term performance might also give reasoning for an expected different focus regarding the tightness of the MCSs that are applied. Anthony and Govindarajan (1998, pp. 436-437) describe the difference between tight and loose control as the degree to which management monitors what a unit is doing. They give as characteristics of tight control 'short-term goals', 'extensive involvement by management in day-to-day operations', 'the budget is considered to be binding', 'frequent determinations of whether budget targets are met', and 'deviations from the budget are generally not considered acceptable'. Loose control is characterized by them by 'more limited management involvement in day-to-day operations', 'budget is regarded more as a tool of planning and communication than as a binding commitment', and 'deviations from the budget are not treated so seriously'. They also state about tight control that short-term benefits may be given priority over what is best in the long run.

Although the contingency that is subject of the study of Kald et al. (2000) is not national culture, but business strategy, their claim is that companies with a business strategy that is more focused on the short-term use tight management control, and companies with a business strategy that is more focused on the long-term use loose management control. Since from the study of Carr and Tomkins (1998) it can be drawn that companies in America have a more short-term focus and companies in the Netherlands have a longer-term focus, the expectation is that Dutch subsidiaries of an American parent in the study apply tighter controls and companies with a Dutch origin, and which are still Dutch, apply looser controls.

Calleja et al. (2006) performed a comparative study on the cost stickiness of companies in the Anglo-American countries Great Britain and United States and the Western European countries France and Germany. They concluded that the level of cost stickiness is higher in the code-law regimes France and Germany than in the common-law regimes of the United States and Great Britain, which encounter a stronger market pressure. The authors attribute this to "differences in the systems of corporate governance and managerial oversight" and state that "an understanding of sticky cost behaviour will result in a better and more robust planning and control system".

Although the authors classify it as "better" and "more robust", in the light of the theories described above, this might also be understood as a consequence of tighter control in the United States and Great Britain, because with the focus on short-term results and maximizing shareholder wealth, the costs must be decreased as soon as possible when the demand declines, where this need is less obvious in France and Germany. Tighter control requires, amongst others (see Section 2.5), precise and timely performance measures, which are certainly also needed to be able to achieve the lower levels of cost stickiness of the United States and Great Britain.

Another reasoning is that long-term focus might suggest looser control, because there is more freedom for the subordinates to choose for activities that lead to (possible) good overall results in the future, relying on the idea that the results will be achieved in the future. This instead of performing activities that lead to results now and to timely be sure that results are achieved or not, and thus be able to make the needed adjustments in the process, which require tighter controls. This reasoning makes the link to the criteria for tight control in Section 2.5, because a long-term focus is in contrast with the 'timeliness' of the definition of the controls and the timely performance measures. Since US companies tend to focus on short-term results, it can be expected from this that they apply tighter controls to increase the likelihood that organizational objectives will be achieved.

The results of the above presented studies lead to the following hypotheses, which will be investigated in the sample of companies in this study:

> *H1: Dutch subsidiaries with a US parent use a configuration of MCSs which is more oriented on hard controls and Dutch companies with a Dutch parent use a configuration of MCSs which is more oriented on soft controls.*

> *H2: Dutch subsidiaries with a US parent use a configuration of MCSs which applies tighter controls than Dutch companies with a Dutch parent do.*

3. Methodology

3.1 Introduction

In order to test the two hypotheses, H1 and H2, from Section 2.7 in the sample of four companies that are subject of this study, the method described in this chapter is performed for the data collection and subsequently for the data analysis. A qualitative methodology is performed in this study to investigate the research question. This study has started following a kind of inductive approach in the sense that the selection of a subject for this thesis was not made in advance. Because the way of collecting data was already known to a large extent, we started first with conducting two interviews. This led to an interesting topic, the different approaches of a Dutch owned company with a Dutch origin and an originally Dutch company which is meanwhile taken over by an American parent. Then we have conducted interviews at two additional companies that met the selection criteria. This is to verify if these initial presumptions also occur there.

In Section 3.2 it is set out how the companies and respondents that are subject of this study were selected and contacted. Section 3.3 describes the process of collecting data and the questionnaire that is used as a data collection instrument during the interviews. Section 3.4 explains how the collected data will be analyzed afterwards to check whether the companies apply either hard or soft controls and if they apply them either tight or loose.

3.2 Selection, recruitment and approaching of companies and respondents

Given the fact that this study initially was part of a broader international setting, some facets of the design are imposed by this international setting. Among these were the criteria for the selection of companies. At the start of this study there were only rough guidelines for the selection of companies. The main criterion was a minimum of approximately 250 employees. Based on this guideline we arranged our first interview at Sensata Technologies in Almelo.

Only after arranging the first interview, additional/clarifying guidelines from the international research became known, in the form of a list of potential companies to approach in the Netherlands. Although it appeared that Sensata Technologies is not in the list of target companies from the international research, it was decided to keep the company in for this study, because based on the used selection criteria for the list there was no risk that this company is also included in studies in other countries participating in the international research and also for the sake of the progress of this study. Moreover, the interview has provided much data and even a direction for a potential interesting research question. During the interview the idea raised that there might exist differences in the approaches of management control between American and Dutch companies.

To comply with the guidelines of the international research and to investigate whether there are indeed differences in the approaches of management control by American and Dutch companies, from that moment companies from the list, established in the Netherlands, with a Dutch owner and of Dutch origin, are targeted. The selected companies became Mediq (Utrecht) and Nedap (Groenlo).

In order to complete the sample for the comparison of the American and Dutch approaches of management control, a fourth company which is established in the Netherlands, but in the meantime acquired by an American parent, as well as in the case of Sensata Technologies, is added. The fourth company became Eaton (Hengelo). This led to a total sample of four companies, consisting of two companies with a Dutch origin, which are still Dutch, and two companies with a Dutch origin that are in the meantime acquired by an American parent.

Since the targeted respondents for this study were the often busy people of top management, it was not easy to persuade them to make time for an interview with a student. Though by persisting in contacting and trying to find the right person within the contacted companies, it succeeded in most of the cases to arrange an interview. Some companies still refused.

One company in this study was contacted via a known former employee of the company. For one company we had a first contact within the company, obtained from a colleague we met during a workshop. The other two companies were contacted by a cold call to the company, asking for the best person to contact and the best way to contact him/her. The process of finding the right person in this way, via receptionists and secretaries, and to get in contact with him/her was time consuming and it took weeks or even months to finally arrange an interview with a respondent.

The aim was to conduct the questionnaire preferably with someone of the top management (TMT) of the selected companies, or at least someone high in the organization who is familiar with MCSs organization-wide. For the companies in this study the respondents were one CEO, one CFO, one plant manager and one manager with a staff function directly reporting to the board of directors (see Appendix 3 for the facts and figures about the companies and its respondents). The choice for these respondents was realized after it was determined that these persons have sufficient knowledge about both MCSs and their implementation within their company.

3.3 Data collection

In Section 3.3.1 the process for the data collection will be explained. The framework on which the questionnaire for the data collection is based will be explained in Section 3.3.2.

3.3.1 Process

Because it is the intention for the international research to perform a statistical analysis on the collected data from many companies in many countries, the main instrument for the data collection is a fairly extensive questionnaire which consists of seven sections, describing the five distinguished components in the framework of Malmi and Brown (2008) (see Section 3.3.2) in a comprehensive way, with the planning component splitted over two sections, along with a section with questions related to the company's 'facts' and external environment (Section G). The extensive nature of the questionnaire is very useful in this exploratory research. The questionnaire is provided by the initiating researchers in Finland, Teemu Malmi and Mikko Sandelin, and was made in English. Because for this study the questionnaire will be conducted at Dutch companies by a Dutch student and the respondents were also Dutch, as a first step I translated this questionnaire into Dutch, which was the first important product of this research, to ensure a smooth progress of the long interviews (see Annex 1 for the Dutch version of the questionnaire).

The questionnaire was conducted during a structured interview, with the questionnaire as the basis for the conversation. During the interview the respondent was asked to explain his answers to verify that the respondent interpreted the questions correctly, to verify that he gives the answers that are applicable to his organization and to get as much information as possible about the company's package of MCSs. Also for these purposes the interview was preferably conducted with two interviewers. This was possible in three of the four interviews.

The interviews were conducted on the respondent's office and took on average approximately two and a half hours of time. During the first interview the whole questionnaire, with all sections, was treated

together with the respondent. The respondent cooperated very well and it took almost four hours, but we realized that it was difficult to demand that amount of time from every respondent. So, for the second and third interview it was decided to ask the respondents to complete the last two Sections F and G of the questionnaire on beforehand. During the interviews we had the opportunity to verify some answers or to discuss the answers that needed extra clarification. The fourth respondent refused to fill out the questionnaire, neither during nor before or after the interview, so the interview was held on a semi-structured basis, but it was still possible to collect the necessary information about the package of MCSs in this company. All interviews were audiotaped and transcribed verbatim.

3.3.2 Questionnaire

As mentioned in the previous section, the questionnaire that is used as an instrument for data collection is based on the framework of Malmi and Brown (2008). To clarify what the sections of the questionnaire are about, this framework will be explained below.

3.3.2.1 Design of framework

Malmi and Brown (2008) distinguish five types of MCSs, namely: Planning Controls, Cybernetic Controls, Reward and Compensation Controls, Administrative Controls and Cultural Controls.

Cultural controls are pictured at the top to indicate that they are broad, yet subtle controls. Those are assumed to be slow to change, thus, providing a contextual frame for other controls. In the middle of the figure are the planning, cybernetic, and reward and compensation controls. These are assumed to be tightly linked in many contemporary organisations, and are presented in temporal order from left to right. At the bottom are administrative controls which create the structure in which planning, cybernetic, and rewards and compensation control are exercised (Malmi & Brown, 2008). In the coming sections follows a short description of the separate types of MCSs that Malmi and Brown (2008) distinguish in their framework.

Figure 1: Framework Management control systems package of Malmi and Brown (2008)

3.3.2.2 Planning Controls

Planning is a control that is performed before the activities of the employees take place and has multiple purposes. "Firstly, it sets out the goals of the functional areas of the organisation, thereby directing effort and behavior. Secondly, it provides the standards to be achieved in relation to the goals, making clear the level of effort and behaviour expected from organisation members. Furthermore, planning can enable co-ordination through aligning a set of goals across the functional areas of an organisation,

thereby controlling the activities of groups and individuals to ensure they are in line with desired organisational outcomes" (Malmi & Brown, 2008). Malmi and Brown (2008) distinguish in their framework two broad approaches of planning, namely action planning and long-range planning. With action planning goals and actions are established for the immediate future, usually a 12-month period or less. This has a tactical focus. With long-range planning goals and actions for the medium and long run are established. This has a more strategic focus.

3.3.2.3 Cybernetic Controls

Malmi and Brown (2008) use the definition of Green and Welsh (1988, p. 289) for Cybernetic Controls, who define them as "a process in which a feedback loop is represented by using standards of performance, measuring system performance, comparing that performance to standards, feeding back information about unwanted variances in the systems, and modifying the system's comportment." This means that cybernetic systems consist of a sort of continuous 'loop' that focuses on continuous improvement. In the beginning, a first target value is set for a measurable indicator that is affected by the employee's behavior. Subsequently, after a period of time the actual value is measured and compared with the target value. If these values differ it should be determined which modifications can be made in the activities that lead to this result, to improve performance towards the target value. Malmi and Brown (2008) distinguish in their framework four basic cybernetic systems: budgets, financial measures, non-financial measures and hybrids, which contain both financial and non-financial measures.

3.3.2.4 Reward and Compensation Controls

The component Reward and Compensation Controls focuses on motivating and increasing the performance of individuals and groups within organisations by achieving congruence between their goals and activities and those of the organisation (Bonner & Sprinkle, 2002). Rewards can be either financial, e.g. salary increase or bonuses, or non-financial, e.g. promotion or a certain training. The Reward and Compensation component has some linkage with the Cybernetic Controls in the sense that the performance indicators, which are part of the Cybernetic Control systems, are often a basis for rewards and compensations, e.g. staying within budget or performing above average on financial measures. Malmi and Brown (2008), however, make the choice to let the rewards and compensations be a separate component in their framework, because rewards and compensations may also be awarded for other reasons than performance indicators, e.g. retaining employees.

3.3.2.5 Administrative Controls

Administrative control systems are defined by Malmi and Brown (2008) as being systems that "direct employee behaviour through the organizing of individuals and groups, the monitoring of behaviour and who you make employees accountable to for their behaviour, and the process of specifying how tasks or behaviours are to be performed or not performed". In their framework they distinguish three groups of Administrative Controls: (1) organization design and structure, (2) governance structures within the firm and (3) policies and procedures.

Organizational design and structure is something that managers set up and are able to change, and to influence in this way the behavior of employees. Hence, Malmi and Brown (2008) define this as a separate group within the Administrative Controls. Through organizational design one can direct the behavior of employees by "encouraging certain types of contact and relationships" (Malmi & Brown, 2008). Organizational structure is aimed at "reducing the variability of behaviour and, in turn, increasing its predictability" through functional specialization (Flamholtz, 1983). "The *governance structure* relates to the company's board structure and composition, as well as its various management and project teams. Governance includes the formal lines of authority and accountability (Abernethy & Chua, 1996) as well as the systems which are in place to ensure that representatives of the various functions and organizational units meet to co-ordinate their activities both vertically and horizontally" (Malmi &

Brown, 2008). This is a control that can potentially protect the company from situations that people in important functions act on their own and in this way are able to harm the company. It also should ensure that people know from each other what is going on in the company and in this way align their activities to work on common companywide objectives, e.g. by meetings. "*Policies and procedures* is the bureaucratic approach to specifying the processes and behaviour within an organization" (Malmi & Brown, 2008). Examples are standard operating procedures and practices (Macintosh & Daft, 1987), rules and policies (Simons, 1987), behavioural constraints, pre-action reviews and action accountability (Merchant & Van der Stede, 2007).

3.3.2.6 Cultural Controls
Organisational culture is defined by Flamholtz (1983, p. 158) as "the set of values, beliefs and social norms which tend to be shared by its members and, in turn, influence their thoughts and actions". Malmi and Brown (2008) distinguish three aspects within Cultural Controls: (1) value-based controls, (2) symbol-based controls and (3) clan controls. *Value-based controls* are defined by Simons (1995) as "the explicit set of organisational definitions that senior managers communicate formally and reinforce systematically to provide basic values, purpose, and direction for the organization". The impact of values on behavior works on three levels: (1) the recruitment of individuals with particular types of values matching with those of the organisation, (2) changing values of individuals to fit the organisational values by socializing within the organisation and (3) by explicating the values to let employees behave according with them, even if they do not adhere to them personally (Malmi & Brown, 2008). *Symbol-based controls* are when organisations create visible expressions, such as building/workspace design and dress codes, to develop a particular type of culture (Malmi & Brown, 2008). *Clan controls* rest upon the idea that individuals are exposed to a socialization process that instills in them a set of skills and values (Ouchi, 1979). "This socialization process may relate to groups, such as professions, or groups within organisations which form some other kind of boundary, such as an organizational unit or division. Clan controls work by establishing values and beliefs through the ceremonies and rituals of the clan" (Malmi & Brown, 2008).

3.4 Data analysis

Based on the findings in existing literature described in Chapter 2, the national culture contingency might have an effect on the applied MCSs in companies and on the tightness the MCSs that are applied. To check whether the expected differences between American and Dutch companies (see Section 2.7) are visible in the companies that are subject of this study, the collected data in the interviews and questionnaires are analyzed in the way described in the next two sections, followed by a description of the data analysis process.

3.4.1 Determination of hard versus soft control

To test the judgment made in hypothesis H1 regarding the presence of hard versus soft control in Dutch subsidiaries with an American parent and Dutch companies with a Dutch parent, it must be determined per company in the sample to what extent there is hard and/or soft control present. As already explained in Section 2.4, for comparing purposes it is better to use a two-dimensional setting instead of a multidimensional setting, like the five MCS components of Malmi and Brown (2008). Since the questionnaire for data collection is based on the five MCS components of the framework of Malmi and Brown (2008), there is a need to relate the five MCS components to a classification for hard versus soft control described in Section 2.4.

Hard

Administrative Controls

Planning
Cybernetic Controls
Reward and Compensation

Cultural Controls
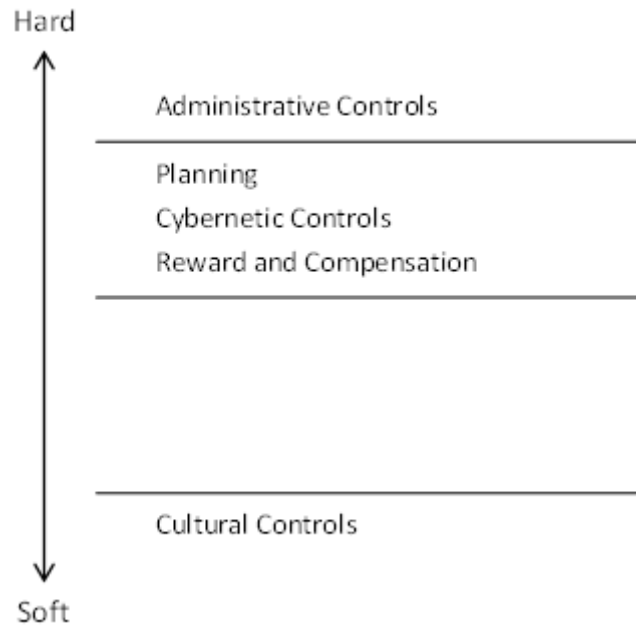
Soft

Figure 2: Hard versus Soft control and the five MCS components of Malmi and Brown (2008)

Relating the framework of Malmi and Brown (2008) to the classifications of hard versus soft control is possible by looking after the characteristics of hard and soft control that are specified by Fee et al. (2011) (see also Section 2.4). According to their characteristics, the components 'Administrative Controls', 'Planning Controls', 'Cybernetic Controls', and 'Reward and Compensation Controls' in the framework of Malmi and Brown (2008) can be classified as quantifiable and objectively measurable. So, parallel to the distinction made by Fee et al. (2011) they can be referred to as the more hard controls. The 'Cultural Controls' fit more to a classification of qualitative, subjective measures and less tangible, so they can be referred to as the more soft controls. This distinction is also visualized in Figure 2. Administrative Controls is in the framework of Malmi and Brown (2008) the most black or white component, the parts of it are very objectively there, or not. To a certain extent this holds also for the components Planning Controls, Cybernetic Controls and Reward and Compensation Controls, although these leave more room for ambiguity in the sense that one can, for example, be flexible in performance measurement or in relation to rewards, or measures can be multi-interpretable or very aggregate. So, although with these controls it is possible to be objective, they leave room for subjectivity. Cultural Controls are very subjective by nature. It is difficult to judge what strong values are or what a strong organization culture means. Also the recruitment and selection of personnel, for example, which belongs to the Cultural Controls of Malmi and Brown (2008), is a relatively subjective activity in the sense that it is always up to the assessor to judge if a person is a good fellow who fits in the organization. Also Gregersen et al. (1996) link these possible problems of rater errors, biases and cultural differences as inherent to soft criteria. The Cultural Controls are about things like behavior itself, which is difficult to measure objectively, as opposed to the outcomes of behaviors.

To judge whether a company focuses more on hard or soft controls, the presence of and the emphasis on MCS components that are part of the questionnaire should produce indications for that. By conducting the interviews with the questions in the extensive questionnaire, it will become clear what MCS components the companies apply and which components are emphasized most. In general it can be assumed that the more hard (soft) controls are applied, and the more emphasis is placed on them, the harder (softer) the total package of MCSs of the company is.

3.4.2 Determination of tightness of control

To determine the tightness of the MCSs present, and thus test the judgment made in hypothesis H2, these MCSs must be checked based on the criteria mentioned in Section 2.5. In that section the tightness of control is explained based on the explanation by Merchant and Van der Stede (2007), who present, along with their explanation, also examples of tight control via their object of control framework, consisting of results controls, action controls and personnel/cultural controls. Also Malmi and Brown (2008) present examples of controls in describing and explaining their framework, which they sometimes explicitly call tight controls. Other examples they present can be classified as tight following the criteria for tight control of Merchant and Van der Stede (2007). These examples can be useful to get an idea of what should be paid attention to in the data of the interviews, with the questionnaire of Malmi and Brown (2008) as basis, and where to find indications of tight control. Therefore these examples of tight control are summarized in Table 2.

From Table 2 the link between the two frameworks of Merchant and Van der Stede (2007) and Malmi and Brown (2008) becomes also clear. It shows a picture that justifies the claims made in Sections 2.4 and 2.5 that the results and action controls of Merchant and Van der Stede (2007) roughly match the Administrative Controls, Planning Controls, Cybernetic Controls and Reward and Compensation Controls of Malmi and Brown (2008) and can be grouped together as hard controls. Also the personnel/cultural controls of Merchant and Van der Stede (2007) and the Cultural Controls of Malmi and Brown (2008) proof to correspond seamlessly from Table 2, and be considered as the soft controls. An example of a linkage between the two frameworks is mentioned by Malmi and Brown (2008) themselves: "Merchant and Van der Stede (2007) present planning and budgeting together as the financial results control systems. However, planning can be done with little reference to finance." Or, where Malmi and Brown (2008) distinguish planning and budgeting separately, Merchant and Van der Stede (2007) group them together as the financial results control systems.

Another aspect that becomes clear from Table 2 is that when examples summarized in this table are present in a company, then one cannot only assume tight control, but also that there is Tight-Hard or Tight-Soft control, depending on which examples are present. If one encounters just the opposite of the examples summarized in Table 2, or even appearances like the few examples of loose control from Merchant and Van der Stede (2007) in Table 3, then there is Loose-Hard or Loose-Soft control accordingly.

3.4.3 Process of analyzing data

All the interviews were audiotaped and transcribed verbatim afterwards (transcripts are available via the author Boudewijn Alink or first supervisor dr. Tom De Schryver). For the analyses the transcripts are a useful source of information to check for the respondent's declarations regarding their MCS package. The transcripts are first used for checking for declarations from the respondent about which of the MCS components are most important in their company, and which are less important. Thereafter, the transcripts are checked for declarations from the respondent about characteristics of these MCS components that confirm the use of hard or soft controls. Also it is checked if the respondent makes any declarations about the tightness of the MCS components or the package of MCSs. Then per company an analysis is made of the MCS package within the company, wherein indicated which MCS components are most important. It is also described how the companies use these MCS components and if hard or soft controls are applied and if they are applied tight or loose. The findings that are shown in the analysis will be proven by examples in the form of quotes from the respondent during the interview. Finally, in order to give an answer to the central research question of this study, thus to explore if there are differences or similarities between the Dutch companies with still a Dutch parent and the Dutch subsidiaries of

American parent companies, the configurations of the MCS packages in these groups of companies will be compared on the dimensions of hard versus soft control and the tightness of control.

			HARD CONTROLS		SOFT CONTROLS
			Object of control framework, Merchant and Van der Stede (2007)		
			Results	Action	Personnel/Cultural
HARD CONTROLS	Management Cotnrol Systems Package Framework, Malmi and Brown (2008)	**Planning**			
		- **Long range planning**	- Clear, understandable and well communicated strategic goals		
		- **Action planning**	- Disaggregated and quantified targets - Monitoring system for plans, activities and performances	- Detailed planning and reporting system	
		Cybernetic Controls	- Strict targets		
		- **Budgets**	- Detailed and frequent budget reviews of performance		
		- **Financial Measurement Systems**	- Hold people accountable for ROI or EVA		
		- **Non-Financial Measurement Systems**	- Total Quality Management	- Total Quality Management	
		- **Hybrid Measurement Systems**	- Balanced Scorecard	- Balanced Scorecard	- Balanced Scorecard
		Reward and Compensation	- Significant performance-dependent incentives - Significant variable pay/bonuses - Direct and definite link between results and rewards (e.g. 'no-excuses management')	- Significant punishments, e.g. disciplinary actions	- Group rewards - Company ownership
		Administrative Controls		- Physical constraints, e.g. locks on desks or doors, electronic security systems - Administrative constraints, e.g. segregation of duties - Frequent pre-action reviews	
		- **Governance Structure**		- Meetings and meeting schedules of management/project teams	
		- **Organization Structure**		- (Many/extra) layers of management - Constant direct supervision - Detailed audits of action reports, e.g. detailed reviews of expense reports	

	- Policies and Procedures	- Work rules, e.g. 'no smoking during working hours' - Policies, e.g. 'obtain three competing bids before releasing a purchase order' - Detailed checklists - Operating manuals - Pre-action controls - Standard operating procedures and practices	
SOFT CONTROLS	**Cultural Controls**		- Hiring good managers - Constant teaching - Moral suasion - Personnel selection - Training
	- Clans		- Ceremonies/rituals of the clan - Socialization processes - Divisions with own values/culture
	- Values		- Mission statements, vision statements, credos, statements of purpose
	- Symbols		- Building/workspace design (open plan office) - Dress codes

Table 2: Examples of tight control from Merchant and Van der Stede (2007) and from Malmi and Brown (2008)

			HARD CONTROLS		SOFT CONTROLS
			Object of control framework, Merchant and Van der Stede (2007)		
			Results	Action	Personnel/Cultural
HARD CONTROLS	Management Cotnrol Systems Package Framework, Malmi and Brown (2008)	**Planning**			
		- Long range planning			
		- Action planning	- Vague targets (e.g. 'do a good job', 'be efficient' or 'improve customer satisfaction')		
		Cybernetic Controls	- Subjective evaluation of performances		
		- Budgets			
		- Financial Measurement Systems			
		- Non-Financial Measurement Systems			
		- Hybrid Measurement Systems			
		Reward and Compensation	- Guaranteed payments - Incentives especially focused on group performances/rewards		
		Administrative Controls			
		- Governance Structure			
		- Organization Structure			
		- Policies and Procedures		- Broad guidelines or vague codes of conduct, e.g. 'exercise good judgment and act courteously in dealing with fellow employees and customers'	
SOFT CONTROLS		**Cultural Controls**			
		- Clans			
		- Values			
		- Symbols			

Table 3: Examples of loose control from Merchant and Van der Stede (2007)

4. Analysis of company interviews

In this chapter the analyses of the interviews I performed with the translated questionnaire at the four companies that are subject of this study will be presented. In Sections 4.1 and 4.2 the two Dutch subsidiaries with an American parent company, Sensata Technologies and Eaton respectively, are treated. Next, in Sections 4.3 and 4.4, the original Dutch companies that are still Dutch, Mediq and Nedap respectively, are treated. Each analysis starts with a short company description, followed by the sections describing the MCSs separately and summarized present at the companies, and the tightness evaluation of these implemented MCS components. Also a section with a concluding remark about the total package is added at the end of every analysis.

4.1 Control at Dutch subsidiary of American company Sensata Technologies

Sensata Technologies is the first of two Dutch subsidiaries that is meanwhile acquired by an American parent company in the sample of four companies in this study.

4.1.1 The company Sensata Technologies

4.1.1.1 The Company

Sensata Technologies Holding is a majority-owned subsidiary of Sensata Investment Company S.C.A. The share capital of SCA is 100% owned by entities associated with Bain Capital Partners, LLC, a leading global private investment firm, its co-investors and certain members of the company's senior management. On April 27, 2006, investment funds associated with the Bain Capital and its co-investors completed the acquisition of the Sensors and Controls business of Texas Instruments Incorporated. Sensata Technologies Holding currently conducts its business through subsidiary companies which operate business and product development centers in the United States, the Netherlands and Japan; and manufacturing operations in China, South Korea, Malaysia, Mexico, the Dominican Republic and the U.S. Many of these companies are the successors to businesses that have been engaged in the sensing and control business since 1931. [4]

4.1.1.2 Overview

Sensata Technologies, a global industrial technology company, is a leader in the development, manufacture and sale of sensors and controls. It produces a wide range of customized, innovative sensors and controls for mission-critical applications such as thermal circuit breakers in aircraft, pressure sensors in automotive systems, and bimetal current and temperature control devices in electric motors. They believe that they are one of the largest suppliers of sensors and controls in the majority of the key applications in which they compete and that they have developed their strong market position due to their long-standing customer relationships, technical expertise, product performance and quality and competitive cost structure. They compete in growing global market segments driven by demand for products that are safe, energy-efficient and environmentally-friendly. In addition, their long-standing position in emerging markets, including their 15-year presence in China, further enhances their growth prospects. They deliver a strong value proposition to their customers by leveraging an innovative portfolio of core technologies and manufacturing at high volumes in low-cost locations such as China, Mexico, Malaysia and the Dominican Republic. [5]

Their primary products include pressure sensors, force sensors, position sensors, motor protectors, and thermal and magnetic-hydraulic circuit breakers and switches. They develop customized and innovative

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[4] Annual report of Sensata Technologies N.V. for the fiscal year 2010, dated 31/12/2010.
[5] Annual report of Sensata Technologies N.V. for the fiscal year 2010, dated 31/12/2010.

solutions for specific customer requirements, or applications, across the appliance, automotive, heating, ventilation and air-conditioning industrial, aerospace, defense, data/telecom, and other end-markets. They are a global business with a diverse revenue mix by geography, customer and end-market and they have significant operations around the world. Their subsidiaries located in the Americas, the Asia Pacific region and Europe generated 42%, 33% and 25%, respectively, of their net revenue for the year ended December 31, 2010. [6]

4.1.1.3 Senstata Technologies in Almelo

The subsidiary of Sensata Technologies Holding in Almelo is the one selected for this research project. This subsidiary is one of the former locations of Texas Instruments and is now the business and product development center of Sensata Technologies that serves the European market. It can be seen as an SBU with two separate pillars, the sensors and the controls activities.

Sensata Technologies Holding as a whole has about 10.000 employees worldwide. There are currently about 300 employees working in Almelo. Although the size of the headcount in Almelo is relatively small compared to the total headcount, the sales volume is about one third of the total, approximately 400 million US dollars for Europe versus approximately 1.4 billion US dollars worldwide. The main activities of this subsidiary are functioning as an intermediate, research and development, after-sales and coordination of the distribution.

(See also Annex 2 for facts and figures about Sensata Technologies)

4.1.2 What Management Control Systems are important at Sensata Technologies?

Following the method described in Chapter 3, to determine whether Sensata Technologies has the focus on hard or just soft controls, it is necessary to check which MCS components that are treated during the interview, are applied at Sensata Technologies and which are judged by the respondent to be the most important in his company.

If we look at the MCSs within the company, then it emerges from the data of the interview that the company makes use of MCSs extensively. However also some attention is paid to the soft controls by means of implementations of Cultural Controls, the focus is more on hard controls, especially the three components in the middle of Figure 1 – Planning Controls, Cybernetic Controls and Rewards and Compensation Controls. These are by the respondent even called as representing the philosophy of the company. This qualification by the respondent is already a clear indication that the use of MCSs within Sensata Technologies plays an important role and is regarded as very important in guiding and directing the behavior of subordinates. Hereafter the various MCS components are discussed in succession. Based on the data collected during the interview, supported by quotes of the respondent, it is indicated to what extent these MCS components are applied at Sensata Technologies and how important these are considered.

4.1.2.1 Administrative Controls

Although the Administrative Controls are present in different ways, this control is mainly used as a supporting control in guiding and directing within the total package of MCSs. The company implemented all three elements – governance structure, organizational structure and policies and procedures – of the Administrative Control in some way or another.

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[6] Annual report of Sensata Technologies N.V. for the fiscal year 2010, dated 31/12/2010.

Looking at the governance structure, the company has a structured system of many different frequent meetings to ensure that employees align and co-ordinate their activities. On the highest level of the SBU there is the biweekly meeting of management with the general manager and the representative manager from every discipline. Apart from this, there are subject specific meetings, consisting of the relevant managers and from time to time accompanied with subject experts, which meet very frequent. An overarching meeting of managers from different SBUs takes place only quarterly. Besides these formal instituted meetings, the respondent emphasizes that there is also an important informal part that helps to let employees align and co-ordinate their activities:

> *"Maar je hebt natuurlijk ook wel een informeel proces, dat toch … Kijk, onze general manager die heeft toch wel een beetje het gevoel van, door gewoon dagelijks te werken met wat mensen van Amerika, wanneer die met een goed plan aankomt daar en wanneer niet."*

and:

> *"Relevante informatie te ontvangen via informele gesprekken? Ja, dat gebeurt."*

Another important way of governance structure used in the company to guide and direct activities of employees are the formal lines of authority. The respondent emphasizes more than once that, however managers at lower levels have enough freedom to prepare decisions, for everything that is of some importance to the company, the final 'go' or 'no go' decision is in the hands of corporate management in the USA:

> *"Capital Expenses doen wij vrij …, we stellen daar wel een jaarbudget vast, maar de autorisatie om daadwerkelijk het dan uit te gaan geven wordt op individuele basis steeds weer opnieuw gedaan. Dus ook al, ik noem maar wat, we dienen een budget van 10 miljoen, daar is allemaal 'ja' tegen gezegd door de board, dat wil nog niet meteen zeggen dat je dan zo maar die 10 miljoen kunt gaan uitgeven. Nog steeds per investering hebben we een proces dat we dan naar boven brengen voor goedkeuring."*

> *"… kijk, er zal altijd een approval van corporate nog overheen moeten, maar ik denk dat … Hè, wij staan dicht bij die klant, dus de initiatieven, wat wij zien in de markt aan mogelijkheden die er zijn, die worden vanuit hier geïnitieerd."*

> *"Maar goed, dat antwoord blijft, want uiteindelijk zijn wij een organisatie waar alle activiteit en energie, die komt van onder. Natuurlijk, dat moet goedgekeurd worden door het management, hè. Van onder komt dat naar boven, gaat dat via de hiërarchie, via bepaalde goedkeuringen, maar het initiatief ligt wel degelijk daar. De mogelijkheid om het initiatief te nemen. Maar niks gaat hier zonder bepaalde goedkeuringen de deur uit."*

> *"… ik noem maar wat, het opstarten van een productontwikkeling met een klant, die uiteindelijk tot een verkoop kan leiden, dan kan die alle initiatief nemen, door met die klant in kaart te brengen, wat is er voor nodig, hier met R&D te kijken van kunnen we dat. Maar vervolgens, om uiteindelijk een 'go' te krijgen, de budgetten daarvoor vrij te maken, dan moet het naar boven toe. Dat kunnen ze niet zo beslissen."*

> *"Nou ja, binnen bepaalde grenzen hebben we hier wel die autonomie, maar in veel gevallen ook niet. Absoluut niet. Nee. Ja, daar zijn gewoon limieten aan ten grondslag. Dus als ik gewoon even kijk … opstarten van nieuwe activiteiten en businesses, wat grotere quotes van klanten, worden allemaal gereviewed met corporate. Uitbreiding/vergroting investeringen idem. Vervangingsinvesteringen, kijk als we hier een nieuwe pc aanschaffen oké, dan is er niks aan de hand, maar als we hier een nieuw klimaatbehandelingssysteem naar binnen willen fietsen van 2 miljoen, komt corporate er aan te pas."*

> **"…** *En leveranciers. Nou goed, daar hebben we wel weer wat meer vrijheid in, maar dat heeft weer met omvang te maken."*

> *"Kijk, ik vind zelf dat wij hier heel ondernemend, met de kennis van de markt, van alles kunnen doen. Maar uiteindelijk voordat wij de formele stap zetten, wij bieden dit nu aan de klant aan, is er een review met corporate. Die is er. Die kijken over onze schouder mee wat wij doen."*

"Niks gaat hier de deur uit zonder dat de general manager dat heeft bekeken."

Regarding organization structure the company is, according to the respondent, designed as a network organization as well as a matrix organization. The network organization is characterized by the many highly educated employees that work together and determine what to do at Sensata Technologies and the matrix organization implies multiple reporting lines that contribute to the internal communication and helps encouraging certain important types of contact and relationships. In this way the company tries to reduce the variability of behavior of the employees. As we will see later in the section about Rewards and Compensations Controls, keeping in contact with colleagues in different parts of the organization is even encouraged by including it for 15% in the assessment of subordinates.

"... En dan hebben we 'System connectivity', 15%. Dus in hoeverre je dus ook echt geconnect bent met andere afdelingen en ziet en weet wat er waar op die afdelingen plaatsvindt."

Policies and procedures are most emphatically reflected in the form of pre-action controls, resulting in a situation that for a final decision about everything of any importance authorization of top management or even corporate management is required. There are also many processes attached to initiating and executing projects, which prescribe how to act and how they should be submitted for approval. Before projects can be initiated, employees must check certain decision rules and check if these satisfy certain minimum requirements.

Another kind of policies and procedures that is present within Sensata Technologies is the code of conduct. While this is certainly implemented to direct behavior of subordinates in the desired direction and is also enforced by punishments, it is not an instrument that is emphatically and explicitly present in the daily management of the company. Desired behaviors are assumed to be known more implicitly, partly because the applied sanctions, in the rarely occurring cases, do not go unnoticed to the employees.

"... daar hebben we een heel algemeen framework voor, wat eigenlijk redelijk onafhankelijk bij tijd en wijle weer onder de aandacht gebracht of getraind wordt, maar dat niet direct mee wordt genomen in de dagelijkse sturing. Ik bedoel, het is van het denkkader, de cultuur waarin wij, het huis waarbinnen wij werken, dat doe je onder die code of conduct. Maar als we dan met onze ondernemingsstrategie bezig zijn, dan is niet dat we die code of conduct-bijbel daar naast ons hebben liggen. Nee. ... Ja, het is namelijk iets, niet waar wij dagelijks mee bezig zijn in ons werk, waar we onze onderneming aan het sturen zijn, maar er wordt wel, tegelijkertijd wel weer heel veel aandacht aan besteedt."

"Maar als iemand zich daar niet aan houdt, dan zijn juist ook weer, dat is weer dat sanctiestuk, dan zijn de sancties hoog. Ja, ik denk niet dat ze heel erg expliciet zijn gemaakt, maar dat ook daar heel veel... Ja, we hebben pas namelijk een geval gehad, gelukkig niet op onze regio, waar dingen ... nou ja, goed, en die mensen die zijn meteen ontslagen. Dus men weet wel van wat de gevolgen, impliciet, wat de gevolgen kunnen zijn. Als je onethisch zakendoet, dan hoor je niet bij Sensata. In onze cultuur. Ja."

Although the Administrative Controls are present in several different implementations and definitely interfere in the daily activities of the employees, they are by the respondent not considered as the most important control for Sensata Technologies in managing subordinates. The role of the Administrative Controls is more of a supporting nature within the total package of MCSs, which employees simply must comply with, than being used to influence the performance of the company in the desired direction.

4.1.2.2 Planning Controls
Regarding the component Planning Controls, the respondent declares that both the strategic long-term as well as the tactical short-term planning are very important in guiding and directing behavior of subordinates. The strategic long-term planning is established via a thorough iterative process between

corporate management and SBU top management, with a combination of a top-down and bottom-up approach, in which proposals are made bottom-up, and subsequently assessed and fine-tuned by corporate management to become in line with the overall global objectives. In this process the objectives are leading in determining the new strategic plan, the associated needed resources are secondary and other variables are only assumed to be known implicitly. An important aim of the strategic plan is to give direction to the company as a whole and activities in general, which is done by means of formulating the corporate priorities that are communicated extensively within the company.

> *"... wij gebruiken daar dus onze, hè, onze corporate priorities voor, die we één keer per jaar refreshen. Daar wordt heel veel aandacht aan besteedt. ... Uiteindelijk wordt dat heel pakkend weergegeven op één sjabloon. En dat zetten we hier dan ook op verschillende digitscreens neer en op die manier wordt dat naar voren gebracht."*

The tactical short-term planning has a more personal and individual character with the established annual plan becoming translated to the mutually agreed personal objectives, in the form of an individual formal CEDRA-document for every single subordinate for the coming year. These personal objectives, or the CEDRA-document, are against which subordinates are evaluated at the end of the year and the rewards are based on, which makes them for the management as well as the subordinates an important element of the control. The annual plan is yearly established and is a result of reviewing and re-establishing the new strategic plan for the coming three years. It is considered by the management as the most important instrument in guiding and directing subordinates, because it contains the action plans, budgets and other resources for the subordinates for the whole year. When no very significant changes in the external environment occur, like a financial crisis, changes are not permitted.

Characteristic for the plans generated during the planning process is the high extent to which they are quantitative, precise and well documented. Especially the quantitative character is considered to be typical for the American background of the parent of Sensata Technologies:

> *"Ja, ja absoluut. [Dat Amerikaanse is (ed.)] Veel meer numbers-driven. Ja absoluut. ... Wat ik al zei, dat onderdeel van onze hele strategische planningscyclus is uiteindelijk, en dat is weer dat numbers-driven, laten wij voor meerdere jaren exploitatie zien, van wat zijn de kosten, wat geven we waar aan uit, aan welke projecten en hoeveel mensen hebben we daarvoor nodig. ... Dus daar wordt vrij uitgebreid naar gekeken. Dus ik zou wel willen zeggen dat, zeker het kwantitatieve stuk, bij means, dat dat een belangrijke focus krijgt."*

The fact that the long-term and short-term planning elements are used to a high extent and are taken very seriously in the sense that many employees are engaged in establishing the plans and translating them into specific objectives, makes that the component Planning Controls can be considered as a highly important component within the package of MCSs at Sensata Technologies.

4.1.2.3 Cybernetic Controls

The Cybernetic Controls are, as explicitly stated by the respondent, certainly part of the most important control systems within Sensata Technologies. It is the way, together with the connected rewards and compensations, in which they believe to be able to direct the performance of subordinates, and therewith the organizational results. The respondent also confirms during the interview that their main purposes for implementing these Cybernetic Controls are providing feedback to learn for the future and the determination of rewards and compensations for the employees.

> *"Ik denk dat we ons daar best wel wat in onderscheiden, anders zijn dan andere bedrijven, dus dat geeft wel aan dat we het heel belangrijk vinden. Dat wij de filosofie hebben om via de beoordeling en aan de beoordeling de beloning te koppelen, om daar prestaties van de onderneming mee te sturen. Dus daarmee is het een heel belangrijk systeem."*

"Dit is een, kijk, en daar ben ik ook heel eerlijk in, dit systeem geeft ook best wel wat discussie hier. Dit is een systeem, dat komt oorspronkelijk van General Electric vandaan, die hebben ook een vergelijkbaar performancesysteem ooit geïntroduceerd, en dat is overgenomen door het hoofdkantoor in Amerika, maar ook hier geïntroduceerd. We hebben hier heel veel gesprekken en discussie hier ook over, maar de uiteindelijke conclusie is dat we dat hier ook onderschrijven. Maar tegelijkertijd is er ook wel wat discussie, of dat nou puur bij de cultuur van een Europees bedrijf past. Je moet natuurlijk wel, dit heeft natuurlijk wel een Amerikaanse invloed."

The Cybernetic Controls are used to a high extent with all of its four distinguished elements (budgets, financial measures, non-financial measures and hybrids), of which the budgets are used to the highest extent. These budgets are most directly related to the daily activities of subordinates, since these are the core of the mutually agreed personal objectives in their CEDRA-document. The fact that this is established at the beginning of the year, and is fixed for the whole year, makes it, according to the respondent, unnecessary for top management to give feedback on it during the year, because the subordinates know their budgets themselves. Evaluation takes place at the end of the year on individual basis and is, as we will see later, of high importance to subordinates, because it is the main basis in determining rewards and compensations.

Although the individual evaluation with subordinates is performed only once a year, the top management has a more continuous overview of all performance measures (budgets, financial measures, non-financial measures and hybrids). These are even monthly evaluated during the top management meetings, so including the balanced scorecards as a hybrid measure. To inform subordinates about the performance of the company as a whole with regard to budgets and other performance indicators, and to be able to perform some additional steering, there are regularly collective meetings, e.g. the quarterly policy deployment meeting.

The fact that the respondent indicates himself that these Cybernetic Controls have a major focus in guiding and directing the company and subordinates, and that they even distinguish themselves in this with respect to other companies, is an important indication that the Cybernetic Controls play a very important role within the package of MCSs at Sensata Technologies. Moreover, this is also reflected in the abovementioned implementations of the performance measures, the high frequency of evaluation of these and the significance attached to it for subordinates with respect to their assessments and corresponding rewards.

4.1.2.4 Rewards and Compensation Controls

As was already discussed in the Planning Controls and Cybernetic Controls sections, the Rewards and Compensations Controls component is part of a system that represents the philosophy of Sensata Technologies to direct the performance of subordinates, and therewith the organizational results. For this reason they have an extensive formal reward system that is mainly financially orientated by means of a variable pay component in the salary of subordinates. The yearly available bonus pool is dependent on the company's annual profit. To determine the distribution of the bonus pool over subordinates, they are rated and ranked relative to each other by their supervisor. The one with the worst relative performance, which can still be good, earns a significant lower reward than the subordinate with the best relative performance.

The score that subordinates earn for their ranking is based on a preset evaluation system that is derived from an existing system at General Electric. It contains five pillars that reflect a broad scope of performances that are considered to be important, which are: champion change for 15%, driving and achieving results for 25%, leading others for 25%, system connectivity for 15% and additional competencies for 20%.

Non-financial rewards do also happen, but they are according to the respondent not very characteristic for the rewards system of Sensata Technologies. The respondent also judges them as less important and less applied than the financial rewards, and these are also less aimed to direct the performance of subordinates and the company as a whole.

> *"Beloningen zijn voornamelijk financieel, maar we proberen ook wel de nodige aandacht te schenken. … En dat zijn dan specifieke events om mensen in het zonnetje te zetten, en daar doen wij toch ook wel behoorlijk wat aan."*

The fact that the respondent indicates that Sensata Technologies has a distinct philosophy for guiding and directing the performance of subordinates and therewith the organizational results, and that the connected Rewards and Compensation Controls component is part of it, makes it a fair assumption that this component is a very important part of the total package of MCSs at Sensata Technologies. This is supported by the extensive implementation of the formal reward system described above, which is of significant importance to the subordinates.

4.1.2.5 Cultural Controls
The Cultural Controls is a component that is considered to be important at Sensata Technologies, but at the same time not very much emphasized during the every-day activities. It is present in various ways, of which some are present in an explicit way, but most are considered to be present in a more implicit way. When looking at the three elements of the Cultural Controls defined in Section 3.3.2.6, examples of controls for the 'clans' and 'symbols' elements are not mentioned by the respondent during the interview and are not addressed or noticed in the brief tour through the company during the visit. Regarding the element 'values', the respondent argues that there is a kind of overlap with the Administrative Controls component, a kind of grey area between where structure stops and culture begins, when it comes to desirable behavior and values, which are also partly included in the code of conduct.

As mentioned in the Administrative Controls section, there is a system of codes of conduct with its corresponding sanctions and it is seen as an important system in guiding and directing subordinate behavior. But, this system is seen more as a framework rather than a straitjacket. One assumes that all people in the organization are aware of desirable behavior, so it is not necessary to carry the codes of conduct physically during daily business. Only from time to time explicit attention is paid to these topics, for example in the form of workshops or lectures. Here one operates on the separation between the formal codes of conduct, which belong to the Administrative Controls and the more informal, but not less important, norms and values of the Cultural Controls, to which one simply are assumed to behave. The overlap becomes clear from the following quotes of the respondent:

> *"Even kijken. Als u het gedrag van ondergeschikten probeert te sturen en te beheersen, in welke mate … gebruikt u ondernemingsbrede gedragscodes en soortgelijke afspraken? Ja, ja, nou goed, die zijn natuurlijk bij ons denk ik meer een algemene voorwaarde dan dat we die echt gebruiken om te sturen en te beheersen. Ik bedoel, we gaan er gewoon vanuit dat iedereen handelt conform die code of conduct."*

> *"Ja. Kijk, want wat we ook, op het moment dat het gaat om code of conduct en, nou ja, wat dus, netjes handelen en dat soort zaken, daar hebben we een heel algemeen framework voor, wat eigenlijk redelijk onafhankelijk bij tijd en wijle weer onder de aandacht gebracht of getraind wordt. Maar dat niet direct mee wordt genomen in de dagelijkse sturing, ik bedoel, het is van het denkkader, de cultuur waarin wij, het huis waarin wij, binnen wij werken, dat doe je onder die code of conduct. Maar als we dan met onze ondernemingsstrategie bezig zijn, dan is niet dat we die code of conduct bijbel daar naast ons hebben liggen. Nee."*

"Oké. Ja, goed, het is altijd even de vraag hoe men ... Ja, het is namelijk iets, niet wat wij dagelijks, waar wij dagelijks mee bezig zijn in ons werk waar we onze onderneming aan het sturen zijn, maar het is wel, er wordt wel, tegelijkertijd wel weer heel veel aandacht aan besteedt."

"Oké, dus gebruikt u een ondernemingsbrede gedragscode ..., zeg ik ja, ja dus, ik bedoel, dat is zeer nadrukkelijk. Maar dat ligt niet iedere dag, ligt die op tafel. Dat wij daar mee bezig zijn. Maar als iemand zich daar niet aan houdt, dan zijn juist ook weer, dat is weer dat sanctiestuk, dan zijn de sancties hoog. Ja. Dus zeer veel."

"Wat tegelijkertijd wil ik zeggen dat we juist een heel ondernemend bedrijf zijn hoor. ... Maar we hebben wel een aantal leefregels ja."

"Maar het is een framework. Het is geen keurslijf. Het is een gedachtegoed. En iedereen voelt heel goed aan wanneer die opereert buiten het gedachtegoed. En dan is het ook snel afgelopen, want dan pas je hier niet meer."

Because of the implicit nature of knowledge of desired behavior and sanctions, it is seen by the respondent as a part of the culture of the organization. Thus, the framework as mentioned above is considered as very important, but it mainly functions as an unconscious way of guiding and directing subordinate behavior.

Another implementation of a control belonging to the 'values' element of the Cultural Controls are the formal statements and documents for communicating the values and purpose of the organization. These formal statements and documents should help to give direction to the actions of subordinates. The vision, by means of the yearly corporate priorities, is very concise and top management insists that subordinates can always remember them. Therefore, these corporate priorities are also presented in a clear template on many digit screens across the organization. On those digit screens the four corporate priorities of that year are made more concrete with some bullet points per priority. In this way everyone is constantly confronted with them.

When looking at the total picture of the Cultural Controls at Sensata Technologies, we have seen that only a small part of it – the vision statement – is present in a very explicit way. This part is seen as very important by the respondent and gets much emphasis of top management in guiding and directing behavior of subordinates. On the other hand, a large part of the prevailing culture is present in an implicit way and is, as stated by the respondent, not very much taken into account in guiding and directing behavior of subordinates, which is a necessary condition to be classified as an MCS. Overseeing this, it can be assumed that, although it has certainly a place in the package of MCSs at Sensata Technologies, the Cultural Controls is not the MCS component with a high emphasis, but only medium.

4.1.2.6 Summarized

After discussing all MCS components separately, the individual results are summarized in Table 4 to give an overview of the total package of MCSs at Sensata Technologies. The comparison of this package at Sensata Technologies with the packages of the other companies in the sample, to answer the central research question of this thesis, follows in Chapter 5.

MCS package component	Importance of component
Administrative Controls	MEDIUM
Planning Controls	HIGH
Cybernetic Controls	HIGH
Rewards and Compensation Controls	HIGH
Cultural Controls	MEDIUM

Table 4: Importance of components within package of MCSs at Sensata Technologies

4.1.3 Tight or loose controls at Sensata Technologies?

To judge about the tightness of the implemented controls at Sensata Technologies, it is necessary to check if the individual implementations meet the criteria for tight controls, discussed in Section 2.5. Per control component this check is discussed in the following sections and results are summarized in Table 5.

4.1.3.1 Administrative Controls tightness

Following the description in Section 2.5 and the accompanying summarizing Table 1, not all implementations of the Administrative Controls existing at Sensata Technologies belong to the same type of control, so the different implementations have to meet its own different criteria to become classified as tight control. For example, most of the implementations of the policies and procedures are a kind of action accountability control, which require different criteria than the implementations of the governance structure, which are a kind of pre-action control.

As mentioned, the implementations of governance structure that exist at Sensata Technologies, like the widely existing written authorization levels and the extensive organized system of many different management meetings, belong, according to Section 2.5, to the pre-action controls. The criteria for this type of controls are (1) frequent, (2) detailed, and (3) performed by informed person(s).

Regarding the prevalent written authorization levels and decision rules, it is not fully known from the data of the interview how detailed these are performed, but the respondent declared that plans, which are submitted for a 'go'-decision to corporate management, need to be prepared carefully and detailed, containing a lot of information about the concerning decision. The decision rules are used to give support in the preparation process. This gives an indication that written authorization levels are performed detailed. It may also be assumed that corporate management has the capacities to judge about those decisions, particularly since submitted plans need to be accompanied with the mentioned detailed information, and therefore they can be assumed to be informed persons who perform the controls. Since the respondent indicates that every decision of any importance to the company needs a 'go' from corporate management in the USA, the written authorization levels are also performed frequent. This means that, although some assumptions are made, it can reasonably be concluded that the implementation of written authorization levels and decision rules at Sensata Technologies is tight. Also the organized structure of meetings seems to meet the criteria for tight control. There are many different meetings held on a (very) frequent basis, from quarterly between SBUs to biweekly and weekly with top management or subject specific groups. Each meeting contains its own relevant managers, which indicates that they are performed by informed people. However from the interview no specific information is available regarding the level of detail of the meetings, the extensive organized structure of meetings gives no reason to assume that these are just held superficially. So, it can be reasonably assumed that the implementation of these pre-action governance structure control implementations of the Administrative Controls together is tight.

The organizational structure controls that are implemented are examples of the action accountability type of control and for the definition of actions they have to meet the criteria (1) congruent, (2) specific, and (3) effectively communicated and internalized. The respondent indicates that the network design is particularly fitted for the organization, because of the typically highly educated personnel. The additional matrix design of the organization, with its accompanying multiple reporting lines, is consistent with the mentioned structure of meetings to encourage certain types of relationships. Since the respondent indicates that both designs are consistent with the organizational characteristics, it can be assumed that these are congruent. However no particular information about the remaining criteria is

available from the interview, supported by the above arguments of the respondent, there is no indication to assume that the implemented designs are not specific or effectively communicated and internalized to the personnel concerned. So, the definition of the organizational structure seems to satisfy all criteria for a tight action accountability control classification, because the fourth criterion (to be complete) needs only to be satisfied if the total package of MCSs solely relies on the organization structure controls, which is not the case for Sensata Technologies.

In addition to the definition of actions, the organizational structure controls also need to meet criteria for the tracking of actions afterwards for the degree of tightness review. The criteria for action tracking are (1) congruent, (2) precise, (3) objective, (4) timely, and (5) understandable. Regarding congruence it can be said that from the rewards system it appears that there is an action tracking component to evaluate to what extent the aims of this control are achieved, thus it can reasonably be assumed that they indeed measure what is desired, so it is congruent. Because it is part of the formal and widely accepted reward system, in this company as well as in other companies, it may also be assumed that they are able to do the action tracking in a precise manner. With respect to the 'timely' criterion, information from the interview is probably not complete, but it is known that at least the yearly evaluation contains information about the actions. Whether this is timely enough in this case for Sensata Technologies, or if the information becomes disclosed more frequent, is unknown. The extent to which the tracking happens objective is also not fully known. However part of the actions aimed by the organization structure are possible to track objectively, actions are partly judged by the supervisor, which is a more subjective way, but from the information from the respondent no indication raised that tracking is done insufficiently objective. From the information about the rewards system it appears that it is clear how the evaluation is done and therefore understandable, at least for the persons to whom it concerns. Thus, although not for all criteria explicit information is available from the interview, there is no reason to assume that the action tracking contains limitations on the criteria for tight control.

To increase the chance that employees will obey to the controls, these must also meet criteria for the corresponding rewards and/or punishments, i.e. those must be (1) significant to the person(s) involved and (2) have a direct and definite link to the actions. The significance of the rewards at Sensata Technologies can be considered sufficient, because these are reflected for a pretty large percentage (15%) in their variable pay salary. Since the action tracking is to some (small) extent based on a subjective judgment, it may be that the link between actions and rewards is not 100% direct, but explicit information is not available on this. Also regarding the criterion 'definite' it is unknown for this particular control, but in general the respondent declared that with respect to the evaluation of subordinates there must have been very special circumstances to take them into account as excuses.

So, after all criteria for determining the tightness of the action accountability control organizational structure have been addressed, although not for all criteria all details are available, most criteria are met and for others there is no indication that these will undermine the tightness of this control. Therefore it is reasonable to assume that the implementation of this control can be considered as tight.

The policies and procedures element contains largely two separate controls that need to be distinguished for determination of the tightness, because the implemented code of conduct is a kind of action accountability control and the decision rules and pre-action controls are of the type of pre-action controls. According to Section 2.5, both types of control have its own criteria the tightness evaluation.

As was already mentioned, the code of conduct is not an instrument that is emphatically present in the daily management of the company. As we will see, this is also reflected in the tightness of the

implementation of it. Regarding the implemented code of conduct, the criteria for the evaluation of the tightness with respect to its definition are again (1) congruent, (2) specific, and (3) effectively communicated and internalized. With respect to congruence, we can say that it is installed and also defined with a clear intention to guide and direct behavior of subordinates. The respondent also indicates that it has its effect and thus apparently functions consistent with the true organizational objectives. According to the respondent it is clear to everyone how to behave – the aim of the code of conduct – and what the consequences are of noncompliance, so we can assume that it is sufficiently specific. However it is not communicated explicitly to a high extent, but only occasionally, because the respondent declares that it is known by everyone in the organization, the communication and internalization appears to be sufficient. Thus, the criteria for the definition seem to be met sufficiently for this control to become tight.

The criteria for action tracking, however, give a different impression. However most information regarding this is not available from the interview, and therefore it is maybe too straight to draw strong conclusions on this, the impression is that, although punishments were imposed in the incidental cases, there is no organized system for the tracking of actions regarding this control. This holds for all five action tracking criteria – congruence, precise, objective, timely and understandable – and would be consistent with the somewhat lower emphasis on this control from management.

There are also criteria for the rewards and/or punishments to make this control tight. Those must be (1) significant and (2) direct and definite. However the action tracking probably not fully satisfies its criteria, it is clear from the interview that especially punishments for noncompliance can be very significant to the persons involved, dismissal included. Regarding the criteria 'direct' and 'definite', the impression rises that one acts decisively where appropriate, but it can be that, partly because it is not entirely known how the action tracking happens, there is room for leniency or excuses initially. Altogether, it seems that the criteria for tightness for the code of conduct control are not all met fully or to the highest extent, but the tightness is only on a medium level.

The other implementations of the policies and procedures element of the Administrative Controls, the decision rules and pre-action controls, are of the type of pre-action controls and must therefore meet the criteria (1) frequent, (2) detailed, and (3) performed by informed person(s) to become a tight control. For both implementations it holds that these occur frequent. They are also closely related, because according to the respondent the pre-action controls are applied on everything of any importance to the company, and therefore happen very often, and these are preceded by procedures containing the decision rules to prepare plans, projects or quotes for the pre-action control by corporate management to ensure that these already satisfy certain minimum requirements. The level of detail is high for the decision rules, as they prescribe a lot of things that subordinates need to check before they can tender a project. For the pre-action controls itself it is unknown from the interview how detailed these are performed, but the information that is required by corporate management on beforehand at least enable them to perform those detailed. The persons who need to use the decision rules are usually the subordinates, which are generally the highly educated people working at Sensata Technologies, so it can be reasonably assumed that they are capable and informed to be able to deal with the decision rules. The pre-action controls are performed by corporate management, who also may be assumed to be capable and having a sufficient overview over the total organization to judge in applicable cases. Besides that, they have the ability to become informed additionally. So, since the decision rules and pre-action controls seem to meet all criteria for tight pre-action controls, they can be assumed to be tight implementations within the element policies and procedures of the Administrative Controls.

Although for some of the implementations, especially the code of conduct, not all criteria for tight control are met, taking all implementations of the Administrative Controls – governance structure, organizational structure and policies and procedures – together, it can be concluded that the implementation of the Administrative Controls is tight. This is because the single controls do not have to function as a single control, but are able to reinforce each other and therefore compensate each other's deficiencies.

4.1.3.2 Planning Controls tightness

About the tightness of the Planning Controls at Sensata Technologies it can be said that it meets the criteria for a tight results control to a high extent, because it consists of clear, specific, understandable and effectively communicated objectives that are quantified as much as possible. For the short-term these are translated into personal objectives for subordinates for the coming year, which makes them extra specific. The long-term as well as the short-term plans are designed according to the true organizational objectives, so these are congruent, in the sense that these support employees in giving direction to their activities, for example by means of the corporate priorities, and helps them to achieve the company's goals. The measurement of results with respect to the planning, or in other words the reviewing and adjustment of the plans, is for both done in a yearly interval. However, the short-term plans are also discussed more often (monthly) among the top management to keep an eye on them, but generally this does not lead to adjustments, only if it is considered as highly necessary. This, though, contributes to meeting the criterion 'timely'. To the extent to which the plans are quantified, which is to a high extent for both the objectives and the means, the reviews of the results can be assumed to be objective, because they make use of many different kinds of performance indicators that track the progress of activities regularly. Those many performance indicators and the high level of detail and accuracy of desired results also contribute to the precision and congruence of the results measurement. The fact that the plans, especially the short-term, are tailored to the individual subordinates makes it possible to let the measurement of results be understandable at least to the person(s) involved. Rewards and punishments for the person(s) involved linked to the accomplishment of plans is via the personal objectives directly linked with the evaluation and reward system, and can therefore also be assumed significant for the person(s) involved. With all its characteristics, the implementation of the Planning Controls point to a tight implementation of control.

4.1.3.3 Cybernetic Controls tightness

As Cybernetic Controls we have seen that all four elements – budgets, financial measurement systems, non-financial measurement systems, hybrid systems – are present at Sensata Technologies, but the focus is most on the budgets element. The others, especially the financial, are applied to a less extent. To become classified as a tight control, the definition of them should meet the criteria (1) congruent, (2) specific, and (3) effectively communicated and internalized. The way in which the budgets are set suggests that these are congruent with the true organizational objectives, because the budgets are part of the planning process in which the organizational objectives are leading for determining activities and their corresponding budgets. The budgets are specific in the sense that they are quantified and related to the individual personal objectives of subordinates for the year. The budgets are effectively communicated to the people it concerns via their personal objectives in their individual formal CEDRA-document. The budgets are also internalized by this way, because these are mutually agreed on between subordinates and their supervisor.

The way of measuring results must meet its own criteria to become classified as a tight results control. It must be (1) congruent, (2) precise, (3) objective, (4) timely, and (5) understandable. Regarding the congruence of the measurement it is not fully known from the interview whether they indeed measure

what they intend to measure, but there is also no evidence to assume the opposite, because the budgets are companywide considered of high importance and it is something that is relatively easy to measure. With respect to the criteria 'objective' and 'precise' it can be said that, according to the respondent, during the planning process the budgets are prepared highly quantified and accurate, thus it is made possible to perform the measurement in an objective and precise manner. The 'timely' criterion, as was also mentioned in the tightness evaluation of the Planning Controls, can for this type of control be considered timely enough, because although results are evaluated with subordinates only yearly, top management has a monthly overview of these. Measurement of budgets may be assumed to be understandable to the persons involved, because these budgets are first mutually agreed on and for the budget holders it would be clear whether the budgets are achieved or not.

Rewards and/or punishments, linked to results on budgets, can be considered significant to the person(s) involved for two reasons. First, subordinates are, via their variable pay salary component, partly rewarded based on their achieved results, with their performance with respect to their budget as being the most important. Besides that, rewards are determined via an internal ranking system of subordinates based on their performances. This ranking system can have the side effect of giving a signal of how one performs in relation to others, which can have a significant impact, positively as well as negatively, if one performs relatively much different from average. The rewards and/or punishments can also be considered direct and definite since the respondent explicitly declared that usually there are no excuses possible after objectives and budgets are agreed on. Only in very rare cases of extreme external circumstances, but for the rest it is all in the game. The only limitation on the direct link between results and rewards is that the size of rewards still depends on the performance relative to other subordinates and the available total bonus pool, which makes that consequences of certain performances of subordinates are not 100% clear in advance.

Overseeing the criteria for the tightness of the Cybernetic Controls, we have seen that the criteria for the definition, the measurement as well as the related rewards and/or punishments can all be considered to be met. For this reason it is a fair assumption that the implementation of the element budgets of the Cybernetic Controls is a tight implementation of a results control. Because the budgets are regarded as by far the most important of the four elements, and they are implemented tight, they provide the tightness of the Cybernetic Controls on their own. The other three elements – financial and non-financial measurement systems and the hybrid systems – are implemented and used largely in the same way, but are regarded as less important or have less emphasis. Therefore, for these elements only some important differences on the criteria for tightness, compared to the implementation of the budgets, are discussed hereafter.

An important difference for the non-financial measures can be that they are probably more difficult to measure and/or comparable among subordinates or groups. Examples of this can be market share or quality. Some of these data are acquired from external agencies. The effect of this difference with respect to the budgets element can be that the definition of these measures as a control can be less specific. Also for the measurement of results there can be effects for the extent to which criteria can be met. There might be restrictions on the congruence of the measurement, because it is not always clear if the measures reflect what one intended to measure. Also the precision and timeliness can have their limits, because of the difficulties with the measurement and time lags that appear between the activities and the availability of the data, especially from external parties. The financial measures usually have the characteristic that these are related to larger groups or entities, like profit or EBIT, which is less in the direct influence of individual subordinates. This can imply that the measurement of these reflects the performance of subordinates with less congruence and less precision than intended compared to the

budgets element. Hybrid measurement systems are, according to the respondent, applied on a more local level, by means of a Balanced Scorecard (BSC) for evaluation, but not on the higher organizational levels. A possible consequence of this can be that the definition of these controls is less congruent with the true organizational objectives. Also the relation with the rewards and/or punishments is less direct and significant, because these are not part of the formal evaluation and reward system.

Although it is not explicitly known whether all limitations of the differences on the criteria with respect to the budgets occur in the case of the applied controls at Sensata Technologies, these have the ability to lower the tightness. As already mentioned, the elements financial and non-financial measurement systems and hybrid measurement systems have a more supporting role within the Cybernetic Controls, where the focus is on the budgets. This implies that when, if at all, the tightness of the other elements is reduced, the effect on the tightness of the Cybernetic Controls is only minor and as a whole these can still be considered tight.

4.1.3.4 Rewards and Compensation Controls tightness

At Sensata Technologies the formal Rewards and Compensations Controls system is part of the system that is considered very important in guiding and directing the behavior of subordinates, and therewith the performance of the organization as a whole. This system subsequently consists of the Planning Controls, Cybernetic Controls and Rewards and Compensations Controls. Many of the criteria that validate the tightness of these controls of the results type are therefore already treated in those former sections and are only shortly highlighted again in this section.

The congruence of the definition of the Rewards and Compensation Controls becomes already apparent from the statement that it is part of 'the system' at Sensata Technologies to direct the performance of the organization, so to achieve the true organizational objectives. It is specific in the sense that the desired results are specified for the subordinates in their personal CEDRA-document. Moreover, both the rewards system as well as the desired performances are explained clearly. Together with the fact that subordinates with their supervisor mutually agree on their personal objectives and the existence of the internally disclosed ranking of subordinates based on the yearly evaluation, this also shows that the control is effectively communicated and internalized.

The measurement of results appears to be congruent for the reason that, as mentioned before, the system is adopted from a renowned company, but also because intense discussions have taken place at Sensata Technologies, after which the system is widely accepted. Whether the measurement is precise in all its facets is not fully known, but the objectives are largely specified quantitatively, which increases at least the possibility of precise measuring to what extent desired results are achieved. The same quantitative nature of the objectives makes it also possible to measure them more objective. Partially the measurements are dependent on judgments of supervisors, but because subordinates are rated and ranked in relation to each other there is a kind of social control on this to let these be as objective as possible. With respect to the Rewards and Compensations Controls the measurement of results seems to be timely (enough), because the yearly interval of them corresponds with the yearly interval of determination of rewards. Nevertheless, one may wonder whether this interval is timely enough looking at the time between the moment of the action and the reward. The understandability of this control does not seem to be a problem, since it is a clearly defined system that must be easy to explain to organizational members.

Regarding rewards and/or punishments it can be said that these are, according to the respondent, a very important part of the control system and therefore these are designed to be of significant

importance to subordinates. The respondent also indicated that, as previously mentioned, in the evaluation there is no room for excuses or buffers for subordinates with respect to their agreed on objectives. This implies the required direct and definite link between rewards and results for this control become tight.

The implementation of the Rewards and Compensations Controls reflects the importance that is attached to it at Sensata Technologies. As discussed, many of the criteria for tight results controls are obviously met, and for the other criteria the circumstances allow to satisfy them, and thus to attach a classification of tight controls to them. Thus, the Rewards and Compensations Controls can be assumed to be a tight implemented component within the package of MCSs at Sensata Technologies.

4.1.3.5 Cultural Controls tightness
Although the respondent seems to indicate that with respect to the culture, in his opinion, everything is fine and that only occasionally attention is paid to it from corporate, the Cultural Controls have obviously not the focus, or at least clearly to a lesser extent than the hard controls – as in this case especially the Planning Controls, Cybernetic Controls and Rewards and Compensations Controls. This is also reflected in the mainly implicit way the culture must be guarded. The development of the culture is not controlled very tight and only from time to time, eventually when regarded as necessary, one pays attention to reinforcement, and in case of violation of what is assumed to be good, corrective action is undertaken. The explicit and formal part for this is more regulated in the Administrative Controls via the code of conduct, but to prevent violations through the culture there are few guarantees. The Cultural Controls side of the described overlap between them is therefore less tight. With respect to personnel one takes during the selection the fit with the existing culture into account, and in case it turns out afterwards that the fit is insufficient, the relation is discontinued. Overall, it appears that certain controls are implemented to increase the likelihood that organizational objectives are achieved by the Cultural Controls, but because of the implicit nature of some, they cannot be considered as tight to a high extent, but only medium.

4.1.3.6 Summarized
After discussing the tightness of all MCS components separately, the individual results are summarized in Table 5 to give an overview of the total package of MCSs at Sensata Technologies.

MCS package component	Tightness of implemented component
Administrative Controls	HIGH
Planning Controls	HIGH
Cybernetic Controls	HIGH
Rewards and Compensation Controls	HIGH
Cultural Controls	MEDIUM

Table 5: Tightness of implemented MCS components at Sensata Technologies

With respect to the tightness of the total package it is important to note that it is not simply a matter of averaging the 'scores' on the individual components to get the tightness of the package. For a package it is already possible to be tight, for example, if only one component is applied tight to a high extent. However, a tight implementation of one or more components does not necessarily mean a tight package, because a loose implementation of another component at the same time can undermine this tightness. It is also still possible to have a tight package if none of the components is applied tight to a high extent, but the components are fully complement to each other and form a tight package together. The tightness of the package of MCSs depends on the extent to which it is able to increase the likelihood that organizational objectives are achieved. The comparison of this package at Sensata Technologies

with the packages of the other companies in the sample, to answer the central research question of this thesis, follows in Chapter 5.

4.1.4 Conclusion about Management Control Systems package at Sensata Technologies

When looking at the MCS components that are present within the package of MCSs at Sensata Technologies, we have seen that the focus within the configuration is far more on the hard controls than on the soft controls. Especially the Planning Controls, Cybernetic Controls and Rewards and Compensation Controls components belong to the philosophy of management to guide and direct behavior of subordinates, and are therefore implemented to a high extent. The soft controls have only few implementations and we have seen that those have not the emphasis at Sensata Technologies.

Regarding the tightness of the controls, we have seen that, in accordance with the prevalence, the hard controls are applied in a tight manner. Also the loose implementation of the soft control corresponds with the somewhat lower emphasis that is placed on it. About the tightness of the total package it can be said that Sensata Technologies has a well thought-out philosophy for how to guide and direct the behavior of subordinates, and therewith achieving the company its objectives, and according to the respondent they seem to succeed in this. This is a clear indication that the extensive implementation of many tight controls leads to a tight implementation of the MCS package at Sensata Technologies.

4.2 Control at Dutch subsidiary of American company Eaton

Eaton is the second of two Dutch subsidiaries that is meanwhile acquired by an American parent company in the sample of four companies in this study.

4.2.1 The company Eaton

Eaton Corporation is a diversified producer of power management solutions. Eaton is a global leader in electrical systems for power quality, distribution and control; hydraulics components, systems and services for industrial and mobile equipment; aerospace fuel, hydraulics and pneumatic systems for commercial and military use; and truck and automotive drivetrain and powertrain systems for performance, fuel economy and safety. Eaton has 75.000 employees worldwide and sells products to customers in more than 150 countries.[7]

4.2.1.1 Eaton Electric Netherlands

Eaton Electric Netherlands, the Dutch Sales organization, is established by merging the sales organizations of Eaton Holec, Moeller Electric and Eaton Power Quality. From these three strong brands an organization was created that can offer a very complete range of systems, components and services. A customer oriented approach, overall solutions of sustainable, innovative and reliable products, and commitment to ethical business are the cornerstones of the success of Eaton Electric Netherlands.[8]

(See also Annex 2 for facts and figures about Eaton)

4.2.2 What Management Control Systems are important at Eaton?

Following the method described in Chapter 3, to determine whether Eaton has the focus on hard or just soft controls, it is necessary to check which MCS components that are treated during the interview, are applied at Eaton and which are judged by the respondent to be the most important in his company. In general, the respondent indicates for all MCS components that these are important or even very important within Eaton. This gives reasoning that both the hard as well as the soft controls are applied and are of high importance. However, given the emphasis that the respondent places on it several times, the component Administrative Controls, as part of the hard controls, seems to have the highest importance and the greatest impact. The other hard controls – Planning Controls, Cybernetic Controls and Reward and Compensation Controls – are also mentioned as important by the respondent, with Planning Controls and Cybernetic Controls as most explicit. The Cultural Controls are certainly not discarded, since they even strongly guard the durable evolved company culture. Hereafter the various MCS components are discussed in succession. Based on the data collected during the interview, supported by citations of the respondent, it is indicated to what extent these MCS components are applied at Eaton and how important these are considered.

4.2.2.1 Administrative Controls

What these Administrative Controls make so important is that these are present to a high extent and have a great and direct impact on all activities of all employees within Eaton. Especially in the context of the policies and procedures this is clearly evident. The respondent emphasizes many times that there are processes for everything. That the respondent emphasizes this so much, more than other declarations about MCSs, seems already to be an indication that the 'Administrative Controls' are the most important MCS component within the organization. These processes are even implemented according to a formal system, the Baldrige system. It is integrally implemented within Eaton's entire

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[7] Translated from http://www.eaton.nl/EatonNL/index.htm, visited on 16-07-2012
[8] Translated from http://www.eaton.com/EatonNL/Electrical/OverEaton/index.htm, visited on 16-07-2012

organization, with all its SBUs and BUs, and is also therefore an important way of management control that is evidently present within the company.

> *"Dus dat is allemaal geïntegreerd met elkaar. En waarom is dit nou belangrijk? Als je dit niet op orde hebt, kun je nooit zo snel bedrijven die je overneemt integreren. Dan heb je allemaal stand-alone units en dat is niet meer manageable. ... Dit is niet op zichzelf staand, hoor. Dit is afgeleid van het Baldrige systeem."*

To be sure that all these processes are indeed implemented, part of the system is that every business unit undergoes a yearly internal audit from another business unit within Eaton to check the implementation of the processes, and whether they stick to these processes. This makes the policies and procedures even more important by increasing the focus on these processes.

Apart from this instituted system of all the processes, the company uses a companywide code of conduct and an ethical code as parts of the policies and procedures. To support these, there is also a hotline, which employees can call when ethical issues arise, to nip them in the bud. Issues are taken very seriously and treated with confidence. The respondent declares that these codes are known by everyone in the company and are restated every year. To enforce these codes, employees are punished for violations of the rules. In order to convince the employees that they must comply with the rules, these punishments are disclosed on beforehand.

In terms of governance structure, as a second part of the 'Administrative Controls', there is a structure with written authorization levels and decision rules, or as Abernethy and Chua (1996) (see also Section 3.3.2.5) call it: "formal lines of authority and accountability". According to the respondent, this is applied to a high extent, with pre-action controls, for example, as part of it. To ensure that activities remain aligned and employees know from each other what they are doing, there are weekly meetings within the SBU with a broad group of managers. With managers from different SBUs there are monthly meetings. The fact that meetings take place pretty frequent indicates an emphasis on control over ongoing activities.

Regarding the third part of the 'Administrative Controls', organization structure, the organization is designed in a way that important relationships are obvious and functional specialization is inherent. Important relationships are encouraged through a matrix organization in which managers have usually multiple reporting lines and extra roles besides managing their own unit. At the same time, as a consequence of the instituted Baldrige based system of processes and directives, functions are clearly defined and delineated. An employee can easily switch between business units, because functions are similar across them. The respondent gives an interesting example of that from his own experience within Eaton:

> *"Het grote voordeel van een Eaton Business Systeem is dat overal de processen gelijk zijn, dat overal waar iemand ook komt gelijk eigenlijk spot-on is met, oké, hoe staat het ervoor. Ik heb overal dezelfde metrics. Die zijn ook overal dezelfde, dezelfde omschrijving. Dus een on-time performance heeft precies dezelfde meting hier als dat ie dat heeft in India. Ik heb bijvoorbeeld twee jaar in België gezeten voor dit bedrijf, ik stap daar in en ik weet gelijk wat ik moet doen."*

So, the 'Administrative Controls' are present in many ways and in such ways that these affect the behavior of all subordinates. It is a component in the package of MCSs at Eaton that has a strong focus, which makes this hard control component a very important component in the package of MCSs at Eaton.

4.2.2.2 Planning Controls
Regarding Planning Controls, the company has a strong focus on its goals. These are clearly formulated in their strategic plan and although these are formulated to a very high extent in a qualitative way, these qualitative goals are at the same time largely accompanied with their quantitative counterparts. This makes it more clear and measurable when results are evaluated against the planning. The goals are to a high extent documented in detail, which makes them tangible and verifiable. As is explained in Section 2.4, the characteristics 'quantitative' and 'tangible', which we see here, are characteristics of hard control. Along with the goals, the means are also specified to a certain extent in the strategic plan, although less comprehensive than the goals.

In addition to the strategic plan, the short term plans for the activities play also a very important role. They contain progress schedules of activities and projects to keep track of them. These make them again 'tangible' and 'measurable'. The respondent formulated this as follows:

> *"… communicatie vinden wij de speerpunt binnen dit bedrijf, dus voortgangsschema's van activiteiten, projecten, etcetera zijn zeer belangrijk."*

He also explains why the hard control short-term planning is so important for the company:

> *"… dat is gewoon heel belangrijk. Ik bedoel, als je dat niet duidelijk neerzet, dan gaat het bedrijf alle kanten uit. Ik denk dat het zeer belangrijk is."*

From the fact that the respondent indicates himself that Planning Controls is an important component, and from the present examples he mentions, it appears that within Eaton the hard control component Planning Controls plays an important role within the total package of MCSs.

4.2.2.3 Cybernetic Controls
Regarding the Cybernetic Controls, two all-embracing quotes were "Men meet alles. Meten is weten, en dat geld hier heel erg" and "Elk proces heeft zijn eigen metrics." Looking at the four distinguished elements in the MCS component Cybernetic Controls in the framework of Malmi and Brown (2008) (budgets, financial measures, non-financial measures and hybrids), Eaton makes use of all of them. Although sales and profits are leading, budgets are certainly attached to them and these are strictly enforced to their upper maximum. These budgets are therefore relatively fixed in the sense that they are determined for the whole year, and only if it appears that sales fall behind, the budgets will be adjusted downward too, to let the profits remain well. In this way, as part of the Cybernetic Controls, the budgets are linked to the daily activities and thus form an important element in controlling the costs.

> *"Eén keer per jaar staan ze voor het hele jaar vast, punt. Tenzij je je sales niet haalt, dan wordt er wel naar gekeken. Dat is altijd naar beneden toe gerekend. Denk niet dat ik halverwege het jaar gewoon meer geld kan krijgen voor iets."*

Besides the budgets there is also a comprehensive balanced scorecard implementation, with for every subordinate maximum 23 performance measures, depending on its responsibilities and function in the organization. Within this balanced scorecard the financial measures prevail, but also the non-financial measures are certainly present. Thus, the balanced scorecard as such is a kind of hybrid measure consisting of financial as well as non-financial measures, to make it possible to measure the total performance of a subordinate in order to hold them accountable for it.

> *"Er zijn er een heleboel financieel, maar je hebt nog heel veel specifieke metrics. Als je een bepaald project hebt."*

Where the hard control character of the Cybernetic Controls emerges again is that the evaluation in this company is to a very high extent focused on individual effort, and particularly also that this is to a very high extent based on their pre-set goals in the form of pre-set fixed target values. This makes them usually quantifiable and objectively measurable, the characteristics of hard control. Subordinates are therefore largely evaluated on their personal performance. As the evaluations are to a very high extent based on pre-set fixed target values, this is an important indication for the deployment of a loop of continuous improvement, or Cybernetic Controls. This can also be illustrated by what the respondent indicates as their main goal of performance evaluation:

> *"Feedback geven om te leren en voor continue verbetering is het meest belangrijke."*

The respondent also indicates that giving feedback for improvement is an even more important purpose of performance evaluation than the determination of bonuses or other rewards, which is also based on the performance evaluation though. Beyond the fact that the respondent indicates himself that it is important, the importance of performance measurement and evaluation, or Cybernetic Controls, within the package of MCSs at Eaton, appears also from the fact that evaluations take place frequently, i.e. monthly. In short, the Cybernetic Controls can be considered to be an important component within the package of MCSs at Eaton.

4.2.2.4 Rewards and Compensation Controls

To complete with the fourth hard control component, Reward and Compensation Controls, this is, according to the respondent, the least important component in guiding and directing subordinate behavior of the four hard control components. Despite this, there is a formal reward system for determination of the variable pay component in the salaries of subordinates. This system consists of pre-set criteria in the form of a yearly personal incentive plan for almost every subordinate, containing his personal objectives. This is evaluated with the subordinate twice a year, with the year-end evaluation meant for the determination of rewards. As well as the objectives in the personal incentive plan, the resulting rewards are mainly individual and can be either financial or non-financial. According to the respondent, these two are fairly balanced.

To determine their rewards, subordinates can score on four criteria (i.e. building organizational capability, leadership style, thinking and acting strategically and personal development), which count each for 25% percent. Depending on their scores, they get assigned a combination of a letter and a number, which can be traced back in a matrix to assign the highest bonus to the best combination and the lowest bonus to the worst combination. The letter represents the more soft side of the performance of the subordinate, i.e. 'how the subordinate did his business' according to a judgment of his supervisor. Although the scores given by supervisors go through an objectifying calibration session, this is a somehow subjective judgment in the determination of performance pay. The number represents 'what the subordinate performed', so in a quantitative sense. This is the objective measure of performance for the subordinate and forms therefore the hard side of the determination of performance pay. This is already an indication that not only quantitative and objective hard control is important at Eaton, but that also the way how you achieve your performance is certainly of importance. A striking statement of the respondent was:

> *"… ik kan mij als een hond gedragen, dan heb ik bijvoorbeeld heel erg goed kwantitatief gescoord, maar dan scoor ik op management skills heel laag. Ik kan een joviale vent zijn, maar ik heb geen donder bereikt."*

Besides the important intrinsic effect, which emanates from the variable pay system, and the non-financial rewards to motivate subordinates to perform well, the company uses this system also in

another way to guide and direct behavior of subordinates. Scoring low on one or even both of the two elements, 'how' and 'what' performance, implies that there follow corrective actions from management. In the worst situation, the subordinate goes into a personal improvement plan with close supervision and training, otherwise the subordinate gets personal counseling. These corrective actions are meant to improve the performance of subordinates in the future.

As already mentioned, the respondent indicates that the rewards are not the most important component in the package of MCSs at Eaton in guiding and directing subordinate's behavior. The other hard controls, and even the soft control Cultural Controls, as we will see hereafter, are of greater importance than the Reward and Compensation component. Therefore, the importance of this component in the total package of MCSs can be considered as only medium.

> *"Het is het totale pakket. Je zou het teveel eer aandoen als je zegt: in zeer hoge mate"*

4.2.2.5 Cultural Controls

To support that not only hard controls are important, the respondent emphasizes that Cultural Controls are very important for Eaton. Even so important, that one would hardly consider it as a control, because it is so obvious. He indicates explicitly that the culture is twofold, namely a culture from Eaton corporate that is imposed and also reinforced to everyone, and a culture which is very well established within the studied location in Hengelo. The latter culture is a clear indication that there is a kind of clan culture control. This clan culture has grown during the more than 100 years of existence of the establishment in Hengelo, with various owners over the years, and is considered as very important by the staff. Over the years, and also since the last acquisition by the actual American parent (Eaton), attempts to change it collided on resistance.

> *"Maar vergeet niet dat wij natuurlijk wel een cultuur hebben die 100 jaar, of iets meer dan 100 jaar oud is. Niet een Eaton cultuur, maar een bedrijfscultuur. En die gooi je niet zomaar overboord."*
>
> *"...Want, als je bijvoorbeeld zou zien wat het verloop is van mensen, die is heel erg laag. Dus die cultuur, die zingt hier nog steeds rond. En maar goed ook. Ik bedoel, wij zijn wel een Amerikaans, onderdeel van een Amerikaans concern, maar dit is niet een Amerikaanse mentaliteit wat hier heerst, hoor. Bedrijfsmentaliteit wel, maar onderling... "*
>
> *"...Maakt het misschien wel een beetje schizofreen af en toe, maar je bent niet zomaar je cultuur kwijt. Je bedrijfscultuur kwijt."*

The culture which is propagated companywide by Eaton is more focused on value based controls and intervenes by all three ways that are mentioned in Section 3.3.2.6, (1) recruitment of individuals with values matching those of the company, (2) changing values of individuals to fit the organizational values by socializing and (3) explicating values to let employees behave accordingly, even if they do not adhere them personally. Regarding recruitment the respondent says:

> *"Een missie, een visie en waarden is een zo vanzelfsprekend ding in dit bedrijf, dat als je dat niet doet, je hier al niet zit. Het is de fundatie van het bedrijf. ... Dat is zo vanzelfsprekend dat je daarin meegaat. Ga je daar niet in mee, dan werk je hier niet."*

In other words, already with the recruitment attention is paid to the mission, vision and values of the company. It is a kind of condition to support these, because otherwise you just are not qualified for working at Eaton. In addition, they try to strengthen and extend the already existing matching values through the special Eaton University. All employees have 40 mandatory hours of training per year through this Eaton University where, during improving and broadening their capacities, all education is

done in the 'Eaton-way'. In this way Eaton reinforces their belief in their way of doing business. The way of explicating values is mainly done through the use of formal documents, in which those are specified. Employees are expected to comply with them and the respondent formulates this as follows:

"*Je doet het ongemerkt de 'Eaton-way', of niet*".

So, if you do not comply, then there is no place for you within Eaton.

With regard to symbol-based controls, no explicit information emerged during the interview. This does not necessarily mean that these are not present, but it is presumable that they do not have the emphasis within the (Cultural) Controls of the company, as the respondent did not pay attention to it. During a short walk through the plant, there were also no specific examples of symbol-based control noticed.

In sum, the above makes clear that the Cultural Controls form a major component in the package of MCSs within Eaton. Complying with the company's mission, vision, values and beliefs is a prerequisite to work for Eaton at all. Moreover, through the Eaton University, all employees get strengthened again in this annually. The 'Eaton-way' is central to the company.

4.2.2.6 Summarized
After discussing all MCS components separately, the individual results are summarized in Table 6 to give an overview of the total package of MCSs at Eaton. The comparison of this package at Eaton with the packages of the other companies in the sample, to answer the central research question of this thesis, follows in Chapter 5.

MCS package component	Importance of component
Administrative Controls	HIGH
Planning Controls	HIGH
Cybernetic Controls	HIGH
Rewards and Compensation Controls	MEDIUM
Cultural Controls	HIGH

Table 6: Importance of components within package of MCSs at Eaton

4.2.3 Tight or loose controls at Eaton?

As Merchant and Van der Stede (2007, p. 123) already mention, the statement "we have procedures for everything", also made by the respondent at Eaton, is an indicative comment from someone who is working in a tight action accountability environment. To judge about the tightness of the implemented controls at Eaton, it is necessary to check if the individual implementations meet the criteria for tight controls discussed in Section 2.5. Per control component this check is discussed in the following sections and the results are summarized in Table 7.

4.2.3.1 Administrative Controls tightness
Following the description in Section 2.5 and the accompanying summarizing Table 1, not all implementations of the Administrative Controls existing at Eaton belong to the same type of control, so the different implementations have to meet its own different criteria to become classified as tight control. For example, the implementations of the policies and procedures are a kind of action accountability control, which require different criteria than the implementations of governance structure, which are a kind of pre-action control.

Policies and procedures are prominently present in the form of the extensive system of processes, which are defined for everything, and the code of conduct and ethical code. Whether the implementation of these can be classified as tight, depends on if this action accountability control meets the criteria (1) congruence, (2) specific, and (3) effectively communicated and internalized. As the respondent makes clear, everything goes according to the processes, so all employees must be aware of them, because they make use of them every day. Thus, it can reasonably be assumed that these are effectively communicated and internalized. From documents shown by the respondent, it becomes clear that these prescribed processes are specific and also extensively documented. If the processes are really congruent with the organizational objectives requires a more extensive investigation, but since these are reviewed and brought in accordance with the planning every year within the entire corporation and are established based on the verified formal Baldrige system, it can be reasonably assumed that these are congruent with the true organizational objectives.

After meeting the criteria for defining a tight control, the tracking of the actions afterwards must also meet certain criteria, i.e. (1) congruence, (2) precise, (3) objective, (4) timely, and (5) understandable. This tracking of actions is performed through the yearly internal audit, which is aimed to check if processes are implemented as intended and if they stick to it. This seems to satisfy the criteria congruence and precise in the sense that it does what it is aimed to do and that management is required to report extensively on activities during this audit. The tracking through the audit can be considered understandable, at least for the persons involved, because these are specially appointed to it. Although the audit is performed internal and not by an external party, it is made as objective as possible by assigning this task to another division. Whether this tracking is done timely can be doubted, because it is done only yearly, which can cause a considerable delay in getting feedback. It depends on the context what time interval can be considered as timely. For this particular case there is no information available about this. If it is not timely enough, it can mean that the policies and procedures lose part of its tightness.

Also the code of conduct and ethical code are a kind of action accountability controls which, as described, are effectively communicated and internalized by restating them every year. Regarding the specificity, these codes define clearly what behavior is expected from individuals and what behavior should be avoided. These may be assumed congruent with the true organizational objectives, since these are specially designed to describe desired behavior of all individuals working for the company, which should lead to achieving these objectives in the way the company advocates. Specifically, the respondent indicates that these controls are congruent with the organizational objective to prevent that the company appears in the news headlines in a negative way, because as a listed company, this is something that needs to be prevented at all costs:

> "Maar vergeet niet dat Eaton, Amerikaans bedrijf, maar de ethische waarden hééél hoog in het vaandel heeft staan. Want ze willen absoluut niet in het nieuws met één of andere ethische kwestie."

> "... En we hebben, we hebben ook een ethics hotline, en we hebben een maatschappelijk werker, en we hebben van allerlei dingen waar jij terecht kunt als je, als je iets hebt waar je niet mee bij je baas terecht kunt. En dat is puur en alleen om te voorkomen dat, euhm, nou ja, dat er een ethische kwestie..."

The action tracking of this implementation is likely to be twofold, although during the interview only one way was discussed actually. In fact, there is a hotline where people can report issues themselves, which are taken very seriously and treated confidentially. As mentioned, this hotline is considered very important. However, the respondent also indicated that there are punishments on violation of the codes, so it is likely that managers also actively assess the behavior of subordinates to find out whether

sanctions should be applied. With these ways of action tracking it might be difficult to meet the criteria for tight action accountability controls 100%. Although it is possible to track the actions timely and the ways are understandable, it might leave room for subjectivity on the judgments whether and to what extent actions or behaviors are good or bad, it might be difficult to track the actions or behaviors precise and regarding congruence – if you really track what you want or need to track – it might be difficult to track all (bad) actions, in particular violations of the codes.

The final group of criteria that the abovementioned implementations of policies and procedures need to meet to become classified as tight are the rewards and punishments, which need to be (1) significant to the person(s) involved and (2) have a direct and definite link to the actions. The rewards seem to be certainly significant, because one of the two components for determining rewards is based on "how" employees perform their job, which has to do with compliance to these controls. Above all, the punishments on noncompliance seem to be even more significant, where the respondent indicates that employees have to do it the 'Eaton-way', or otherwise they would not work for Eaton. This indicates that the end of their occupation at Eaton is an option. About the extent to which these rewards and punishments are direct and definite there is no information available from the interview. An indication for an assumption that these are applied direct and definite might be that the respondent emphasizes that punishments are clearly defined, established on beforehand and also communicated to the personnel on beforehand.

So, regarding the tightness of the policies and procedures it can be assumed that these action accountability controls meet most of the criteria for being a tight implementation. About some of the criteria, especially for the tracking of actions and the rewards and punishments, not all information is available, which might lower the tightness of the policies and procedures element within the Administrative Controls. To increase the tightness of the Administrative Controls, the other elements can support this.

As mentioned, the implementations of governance structure, which exist at Eaton, like written authorization levels, decision rules and the organized system of management meetings, belong according to Section 2.5 to pre-action controls. The criteria for this type of controls are (1) frequent, (2) detailed, and (3) performed by informed person(s).

Regarding the prevalent written authorization levels and decision rules, there is not enough information to conclude that these are detailed and performed by informed person(s). However, the respondent indicates that these are applied to a high extent, so there is evidence to assume that these pre-action controls are used on a frequent basis, which is the third needed constraint to become classified as a tight control. Since there is not enough information about two of the three constraints for tight control, it cannot be concluded that these controls are implemented tight, but there is also no evidence to assume that these are implemented loose. The meetings, however, meet the criteria for tight control. These are held very frequent and with informed persons; weekly with an extensive group of relevant managers from within the SBU and monthly with an extensive group of relevant managers from different SBUs. Although an extensive group of managers does not necessarily mean that it is performed detailed, there is also no evidence that the meetings are just held to exchange information superficially. So, it can be reasonably assumed that the implementation of these pre-action control implementations of the Administrative Controls together is tight.

The organizational structure controls that are implemented are examples of the behavioral constraints type of control and have to meet the criteria (1) reliable and (2) restrictive. Inherent to the applied

Baldrige system at Eaton is that functions are clearly defined and delineated, which makes them in design restrictive. Although cheating is always possible, even in the best designed safety systems, the reliability is increased a lot by the existence of a matrix organization in which multiple reporting lines and extra responsibilities besides managing their own unit are common practice, which makes cheating more difficult and early detection easier. So, the implementation of the organizational structure element in the Administrative Controls can also be considered tight.

Overall, although not all criteria are met for all controls that are part of the Administrative Controls, or for some there is no sufficient information, it can be concluded that all these implemented controls together make the Administrative Controls tight, because they are implemented so broad, numerous and extensively, and many criteria are still met for many controls.

4.2.3.2 Planning Controls tightness

About the tightness of the Planning Controls it can be said that it meets the criteria for a tight results control to a high extent, because it consists of clear, specific, understandable and effectively communicated objectives that are disaggregated and quantified. For the short-term these are subdivided into a lower level in the personal objectives of subordinates for the coming year. The Planning Controls component is designed according to the true organizational objectives in the sense that it supports the employees in giving direction to their activities and helps them to achieve the companies' goals. The measurement of results with respect to the planning, or in other words the reviewing and adjustment of the plans, is done in a timely interval, which is for the long-term strategic plan a yearly interval and for the short-term action plans a monthly interval. This are adequate timely intervals for the concerning plans. To the extent that plans are quantified, which is to a high extent additional to the qualitative objectives and means, the reviews of the results can be assumed to be objective, since it is already explained that measures on results are done accurate and on a continuous basis. Regarding specificity of the plans, the respondent makes clear that objectives in the strategic plan are detailed and accurate to a high extent and short-term plans contain much detailed information, from progress schedules of activities to allocated resources. As mentioned, as far as reliably possible, the information in the plans is presented in a quantified manner. That plans are defined in a quantitative and detailed way makes it possible to let the measures be precise and congruent with the requirements. Rewards and punishments for the person(s) involved linked to accomplishment of the plans are via the personal objectives directly linked with the reward system, and can therefore be assumed significant for them. With all its characteristics, the implementation of the Planning Controls component points to a tight implementation of results control.

4.2.3.3 Cybernetic Controls tightness

As Cybernetic Controls we have seen that all four elements – budgets, financial measurement systems, non-financial measurement systems, hybrid measurement systems – are prevalent at Eaton. The respondent even indicates that performance measures, in all of its different appearances, are highly prevalent, since he stated:

> "Absoluut. Wij meten, nou ja, 100.000 keer meer dan we toen [before acquisition, ed.] deden. Dit bedrijf is puur gericht op prestatie-indicatoren. Ach, puur, puur klinkt ook zo zwart-wit natuurlijk. Maar men meet alles. Meten is weten, en dat geldt hier heel erg."

About the tightness of these performance measures he also made a clear statement that there is an attitude in which already when there is only a slight deviation from the target value, all alarm bells start ringing:

"Maar, de Nederlandse cultuur heeft wel een beetje, van, nou ja, die indicator, die staat op 90, maar als die 89 is, is het prima, 88, nou ja, dat gaat nog wel, 87, potverdikke, daar moeten we wel een keer naar kijken, 85, holy shit, hè, we missen business! Hier gaat dat niet. Als je binnen Eaton niet op 90 zit, en je zit op 89, wat is d'r aan de hand? Wat gaan we daar aan doen? Dat is een beetje de cultuur."

To become classified as a tight results control, these should meet the criteria (see Table 1) (1) congruent, (2) specific, and (3) effectively communicated and internalized. The way in which budgets are set suggests that these are congruent with the true organizational objectives, since the budgets are part of the planning process in which the organizational objectives are leading for determining activities and their corresponding budgets. The budgets are specific in the sense that these are quantified and divided into, at least, sales and costs for the year. When needed, the budget will be even adjusted downwards to actual sales or costs during the year to keep the required profit. The budgets are effectively communicated to the people it concerns, the budget holders, via their personal objectives for the year. The budgets are also internalized in this way, because the subordinates agree on their personal objectives with their supervisor.

After settlement of the budgets, the follow up through measurement of results must meet its own criteria to become classified as a tight control. It must be (1) precise, (2) objective, (3) timely, and (4) understandable. It seems that measurement is done precise, because based on this potential adjustments are made during the year. Moreover, the respondent indicates that he has a constant overview of relevant performance indicators, allowing him to constantly know what the actual situation is for, amongst others, the budgets. Since the budgets are well quantified and simply depend on figures available from finance, there is no real space for subjectivity, so it seems that results on budgets are measured objectively. Again, as the respondent indicates that there is a continuous overview of the performance indicators and that budgets are, if necessary, adjusted according to them, it can be assumed that the measures are timely. Since subordinates themselves agree on the set budgets for them, there is evidence that the budgets are understandable, at least for the persons to whom it concerns.

As mentioned in the description of the implementation of the Rewards and Compensation Controls above, subordinates are partly rewarded and/or punished based on their achieved results. We have no information about how significant subordinates experience these, but it can be imagined that subordinates want to prevent that they are forced into a personal improvement plan, because colleagues also know that this is caused by bad performances. Thus, besides that subordinates can earn rewards for good results, the pressure of otherwise ending up in a personal improvement plan makes the effects of the Cybernetic Controls, with the budgets included, extra significant. The Cybernetic Controls also seem to induce direct and definite rewards and/or punishments, since the results are judged to predefined goals, and based on the fact that the goals are achieved or not, the subordinates get a score in the form of a number for the reward matrix. There seems to be no space for ambiguity, so these are relatively direct and definite. So, if we look at the tightness of the implementation of the budgets, as part of the Cybernetic Controls, we see that the budgets are congruent with the organizational objectives, specific and effectively communicated and internalized. For the measurement of results, there is evidence that this happens precise, objective, timely and understandable. Also the criteria for corresponding rewards and/or punishments, which can make the Cybernetic Controls tighter, are met to a certain extent; the rewards and/or punishments are rather significant to the subordinates and are direct and definite. For this reason it can be concluded that the budgets are applied tight.

Although budgets is just one of the four elements of the Cybernetic Controls, which are all prevalent at Eaton, the discussion of the criteria is largely the same for all four elements, with largely the same

arguments. Therefore, only the discussion of hybrid measurement systems will follow hereafter, because this is applied as a kind of balanced scorecard, which also largely covers the financial and non-financial measures.

The balanced scorecard of 23 measures maximum, which applies to almost all employees, is defined congruent with the true organizational objectives, because already at the moment of setting the personal objectives with the employee, targets for the various measures are agreed on to achieve the organizational objectives. Regarding specificity it can be said that a vast majority of measures is quantified. Also those measures that are not quantitative by nature are made measurable using the balanced scorecard. The advantage of using relatively many measures is that these are disaggregated. The measures are effectively communicated and internalized with the employees involved via their personal objectives.

The hybrid measures, or in this case Eaton's balanced scorecard, are a result of the "meten is weten"-philosophy, which is very important within the company. This makes it plausible to assume that the used measures measure what one needs to know to judge whether activities of employees lead to desired results, and thus are congruent. From the fact that the respondent indicates that even a small deviation from the target values should start ringing the alarm bells, and this also happens in practice, it appears that the measures are sufficiently precise for its purpose. A vast majority of the measures is quantitative and based on objectively measurable values or figures from finance. Even though for the rewards the evaluation via the balanced scorecard is yearly, with an additional interim half-yearly evaluation, for the criterion timely applies the same as for precise, namely that supervisors have a continuous insight into the key performance measures to be able to intervene. In this sense the measures are certainly timely. The measures itself are all understandable and also well-documented. The relatively large number of measures per employee might make it a little less clear, but the measures themselves are clear.

Regarding the criteria significant, direct and definite for the rewards and/or punishments applies the same as for the budgets: both rewards as well as punishments can be significant to the person(s) involved and there seems to be no space for ambiguity in the allocation of rewards and/or punishments in relation to results.

The Cybernetic Controls, which are important for Eaton, answer to their "Meten is weten"-philosophy and enable the company to achieve its organizational objectives in a better way. It meets all necessary criteria for a tight control and thus can be classified as a tight implementation.

4.2.3.4 Rewards and Compensation Controls tightness
At Eaton there is a formal Rewards and Compensation Controls system to determine the variable pay of employees, and also a less formal system in which employees can reward each other with a kind of points for undertaken extra or special activities that are good for the company. Especially the formal system is designed by the management as a tight control and meets the criteria for a tight results control. Most of these criteria were already discussed with the other controls present, in particular the Planning Controls and Cybernetic Controls systems, since for the functioning of these separate systems the other systems are supportive.

This natural results control can be considered as a tight control, because both the results and behavior of employees that the company considers as important are rewarded by the two matrix components to direct activities of employees in the direction of the true organizational objectives. The rewards and compensation system has a focus that is specific in the sense that, following on the personal evaluation,

allocated rewards are also personal and mainly not group based, apart from a potential profit sharing. Whether the rewards and compensation system is effectively communicated and internalized in detail became not fully clear from the interview, but employees are certainly aware of it through the link with their personal objectives and what they can achieve with it and the fact that they will notice it in the rewards they earn.

Regarding the congruence of the measures for the rewards and compensation system it can be said that it uses indeed measures that allow assessing employees on their performance and their behavior that is considered important by the company. This happens even as objectively as possible through the objective measures of the performance measurement system and through a subjective assessment of a supervisor on how the employee behaves in achieving his results, which is subsequently objectified in a calibration session. This way of measuring makes it possible to be congruent with what one wants to measure. Because the measures serve multiple purposes and, as explained before, for those purposes it is certainly necessary to be precise, these meet this criterion for the rewards and compensation purpose too. The measures are relatively objective, because of the objective input data and the subjective part is objectified by a calibration session. Whether the use of the measures is timely enough to accomplish an adjustment in the way the employee performs and behaves in the direction of the organizational objectives is doubtful. It takes place only once a year and might mean that the activities to which it relates has been relatively long ago. From the explanation of the rewards and compensation system by the respondent raises the impression that it will not for all employees be equally understandable, because it consists of multiple steps and it may not be clear-cut how one comes from a certain performance to a certain reward. Possibly the system is not maximum simple and understandable.

As already explained several times, rewards as well as punishments can be significant to employees. The respondent indicates that there is no space for excuses in determining rewards, so the link between results and/or actions, and rewards is definite. The link is also relatively direct, because better results lead to higher rewards and vice versa, however this is not completely linear but stepwise, due to the intermediate matrix format step. From the discussion of the criteria it appears that the Reward and Compensation Controls component is designed properly to contribute to let employees act and behave according to the desired behavior and contribute to the true organizational objectives, and therewith it is a tight implementation.

4.2.3.5 Cultural Controls tightness

Regarding the tightness of the Cultural Controls it was set out in Chapter 2 that tight control is usually difficult to achieve with personnel/cultural controls alone. Since Eaton has a lot of other (tight) MCSs, the Cultural Controls at Eaton can be considered as a complement to the tightness of the entire MCS package as long as the Cultural Controls contribute in a positive way to desired actions. It was also set out that the effectiveness of these controls is often difficult to assess, but is generally a function of the knowledge available to link the control mechanism with the solution of the existing control problems. A good condition for a positive contribution to the effectiveness of these controls is often a stable culture, which is the case at Eaton, according to the respondent, since the culture evolved during a period of already over 100 years. Missions, visions and values are to a very high extent a part of the company and an important condition in the recruitment of personnel, so the management also tries to maintain the existing culture for the company. The culture seems for these reasons to contribute to the desired actions and thus to be a tight implementation of Cultural Controls at Eaton, and so also contributing to the tightness of the package of MCSs.

4.2.3.6 Summarized

After discussing the tightness of all MCS components separately, the individual results are summarized in Table 7 to give an overview of the total package of MCSs at Eaton.

MCS package component	Tightness of implemented component
Administrative Controls	HIGH
Planning Controls	HIGH
Cybernetic Controls	HIGH
Rewards and Compensation Controls	HIGH
Cultural Controls	HIGH

Table 7: Tightness of implemented MCS components at Eaton

With respect to the tightness of the total package it is important to note that it is not simply a matter of averaging the 'scores' on the individual components to get the tightness of the package. For a package it is already possible to be tight, for example, if only one component is applied tight to a high extent. However, a tight implementation of one or more components does not necessarily mean a tight package, because a loose implementation of another component at the same time can undermine this tightness. It is also still possible to have a tight package if none of the components is applied tight to a high extent, but the components are fully complement to each other and form a tight package together. The tightness of the package of MCSs depends on the extent to which it is able to increase the likelihood that organizational objectives are achieved. The comparison of this package at Eaton with the packages of the other companies in the sample, to answer the central research question of this thesis, follows in Chapter 5.

4.2.4 Conclusion about Management Control Systems package at Eaton

We have seen that within the configuration of the package of MCSs implemented at Eaton, there is neither a strong focus on hard nor soft controls alone, since both extremes are considered by the respondent as very important for the company to achieve its objectives. Although the Administrative Controls appear to be very important and very much established within the company, the respondent emphasizes that the Cultural Controls are also a very important supporting control to guard the way of doing business. The balance might point some more to the side of the hard controls, because also the Cybernetic Controls are of high importance, since everything is measured and tracked closely to undertake appropriate action when only small deviations occur.

We have also seen that the tightness of the package appears to be high, because many different MCSs are implemented and meet the constraints to become classified as a tight control. In addition, the different implemented MCSs seem to reinforce each other, since the company is successful in achieving its objectives over the years. Although we have seen that the other controls are tight in itself, the Cultural Controls appear to play an important role in the collaboration of the components in the package of MCSs. All in all, it can be concluded that Eaton implemented many MCSs and did this in a way to increase the likelihood of achieving its organizational objectives to a maximum. This is exactly the purpose of tight controls, thus it can be reasonably assumed that the total package of MCSs at Eaton is a tight implementation of an MCS package.

4.3 Control at Dutch company Mediq

Mediq is the first of two Dutch companies in the sample of four companies in this study.

4.3.1 The company Mediq

Mediq is based in Utrecht, the Netherlands, and is an international provider of medical devices, pharmaceuticals and the associated care. Mediq takes care of the delivery from supplier to patient, via 3 distribution channels: directly to people's homes, if needed with the associated care; via healthcare professionals such as hospitals and other care institutions; and via Mediq Apotheken (pharmacies). Mediq has 8,300 employees in 14 European countries and the United States. Mediq was incorporated in 1899 as OPG and is listed on NYSE Euronext Amsterdam since 1992. In 2009 the name changed from OPG to Mediq.[9]

(See also Annex 2 for facts and figures about Mediq)

4.3.2 What Management Control Systems are important at Mediq?

Following the method described in Chapter 3, to determine whether Mediq has the focus on hard or just soft controls, it is necessary to check which MCS components that are treated during the interview, are applied at Mediq and which are judged by the respondent to be the most important in his company.

If we look at the MCSs within the company, then it appears during the interview at Mediq that they make pretty much use of them. Thereby the respondent declares explicitly that they make use of hard controls as well as soft controls and both are important for different reasons. The general view within the company is that hard controls are important and particularly necessary for the daily operations and, as we will see later, these are necessary to make the package more tight, but that soft controls are even more important and that especially the success for the long term even depends on those. Although the respondent elaborates much during the interview about the hard controls, which are definitely present within the company, he emphasizes several times the higher importance of the soft controls.

> *"D'r zijn een aantal hard-controls, die zijn hier best wel veel aan de orde gekomen, dat zijn eigenlijk, in mijn ogen, een beetje hygiënefactoren, die moeten gewoon op orde zijn, voor een groot gedeelte. Maar ik denk dat uiteindelijk het succes van je organisatie, dat die toch veel meer ook in de soft-controls zit."*

During the interview it appeared that all four hard control components – Administrative Controls, Planning Controls, Cybernetic Controls and Reward and Compensation Controls – as well as the soft control component Cultural Controls are part of the package of MCSs at Mediq. Hereafter the various MCS components are discussed in succession. Based on the data collected during the interview, supported by quotes of the respondent, it is indicated to what extent these MCS components are applied at Mediq and how important these are considered.

4.3.2.1 Administrative Controls

Although these are more seen as a condition additional to the more soft controls, the Administrative Controls are certainly implemented in different ways at Mediq. As we shall see, this concerns in particular implementations of the elements governance structure and policies and procedures.

In case of the governance structure, Mediq makes use of a range of different periodically meetings for different groups of management to align each other's activities. These meetings have fixed members and, depending on the levels of management included, these are weekly, monthly or quarterly. In

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[9] http://www.mediq.com/, visited on 3-4-2012

addition to these meetings there is twice a year another important meeting of the Top-40 regarded most important managers, which has, as we will see later, besides the function for the governance structure actually more a function as a Cultural Control. An implication of the prevalent flat organization structure is that usually all relevant managers are standard together in these meetings and therefore no additional experts are needed on invitation.

To prevent that employees can harm the company too much on their own, as is a function of the governance structure, there are levels of authorization and segregation of duties installed. Although employees have certainly a certain degree of autonomy to take decisions within their budget, there are levels above which multiple signatures are needed for making investments or payments. Especially the autonomy over more strategic decisions and decisions with a greater impact is located higher in the organization.

> *"Ja, daar zijn duidelijke richtlijnen voor. Ik bedoel, er is een bepaalde mate van autonomie binnen de business unit, maar zodra het, zeg maar, bepaalde bedragen overstijgt, dan moet het via de, euh, … En dat geldt zowel voor betalingen als voor investeringen."*

> *"Kijk, d'r moet meegetekend worden op bepaalde niveaus van investeringen en betalingen, dus dan kun je zeggen dat dat een behoorlijke hoge …"*

The organization structure is, in line with the autonomy of subordinates, a simple and flat structure in which not many warranties are built in, like multiple reporting lines, which are even rare. The respondent indicates this even explicitly ("niet echt een hele sterke matrixorganisatie") as if they do not have this, because they consciously submit responsibilities to subordinates. To ensure that subordinates are aware of, for them, relevant information, there is, besides the meetings, which are part of the governance structure, also the company information system to which they have access with their individual permissions, because of the prudence coming with Mediq's public listing. Besides these ways of information transfer, the respondent emphasizes that the informal circuit is an important and common communication channel within the company. This is supported and amplified by the open design of the building.

> *"Nou, het informele circuit is altijd wel belangrijk. [Ook met de open structuur hier qua pand? ed.] Ja, precies. Ja, ja, exact."*

In terms of policies and procedures it appears that these are present in several ways at Mediq to bring in some standardization that can be easily checked and enforced with sanctions/punishments. Already at the moment that employees join the company they are explicitly informed about the company code of conduct and get a hard copy of it. This emphasizes that this is an important piece of control for the company. As already mentioned, to constrain the autonomy of subordinates to the boundaries of their budgets and to the upper limits for investments, there are pre-action controls in the form of segregation of duties. Besides these boundaries, subordinates are only allowed to perform or propose investments that satisfy certain pre-specified minimum requirements regarding profitability, for example. Constraints regarding risks and activities to be avoided are actively communicated to prevent subordinates from undertaking these. To enforce compliance to all policies and procedures that Mediq implemented, they have a range of corresponding sanctions that can be imposed to subordinates for noncompliance. These sanctions are well known within the company and disclosed on beforehand.

Overall, the respondent declares that rules and procedures and things like the organization structure, or taken together as Administrative Controls, are important and certainly necessary to be implemented,

but that these are always subject to possible circumvention. So, although these are present in different ways, the respondent indicates that other controls, which increase the likelihood that employees interpret those Administrative Controls correct and act correspondingly, are more important.

4.3.2.2 Planning Controls

The Planning Controls is one of the MCS components that have a central place at Mediq in guiding and directing the company and its employees. During the interview it becomes clear that the result of Planning Controls – the long-term and short-term plans – is something that emerges many times during the year and is used in many other processes and controls. It is the necessary start to enable management to employ the other controls. Therefore the planning process in general is done in a thorough manner in which the plans are established during a top-down as well as a bottom-up approach. In this way more people than just corporate management is engaged, which makes the Planning Controls component of higher impact to the subordinates.

Through the Planning Controls, biannually for the long-term and annually for the short-term, the principles with respect to the strategies, objectives and associated budgets are established. The strategic long-term planning is done quite profound by corporate management and SBU top management together. As part of the leading chosen strategy and Mediq's core competences, in particular the objectives for the following three years are, as well as possible, established in a quantitative way in terms of desired results or market positions. Although the long-term plan is established for a period of three years, it is reviewed and revised every two years to establish a new plan for the next three years.

Where the strategic long-term planning contains main areas of action, the tactical short-term translation is certainly also very important within Mediq. In this translation annual budgets are established, associated with the objectives agreed on with every subordinate in their personal objectives. This is, according to the respondent, done at a fairly detailed level for both, objectives and associated resources, so it contains information about things like necessary resources and progress schedules of activities and projects. The importance of the short-term plans for the subordinates emanates also from the fact that these are only set once a year and are, partly due to the public listing of the company, only quarterly adjusted to actual circumstances for external communication, but subordinates are still nailed down to their agreed objectives.

The respondent states that the long-term planning is very important, because it indicates the direction in which subordinates can perform their activities to help achieve the common organizational objectives. The short-term planning has the important aim to establish the personal objectives of subordinates, to which they can later be evaluated and judged. But, although the respondent indicates that the component Planning Controls plays an important role within the package of MCSs at Mediq, like for hard controls in general, but for Planning Controls explicitly, he also states that it is not the most important control in guiding and directing the behavior of subordinates:

> *"Euhm, even kijken, hoe belangrijk is de strategische planning in het leiding geven en het aansturen van het gedrag van ondergeschikten? … Ik bedoel, d'r zijn best wel wat mensen natuurlijk die gewoon een bepaalde baan en hebben die moeten gewoon dingen doen, en die worden niet zo direct geraakt door als je strategisch wat anders gaat doen. Ik bedoel, financiële administratie, die moet gewoon administreren, bij wijze van spreken, maar als het gaat om dingen die je echt, euh, dus als je echt een nieuw segment bijvoorbeeld wilt aanboren, ja dan krijg je wel mensen echt … Dus de groep die dat raakt die is wat kleiner. Ja."*

4.3.2.3 Cybernetic Controls

As is already mentioned in the Planning Controls section, budgets have a central role in setting objectives and in evaluating and rewarding subordinates. Performances with respect to these budgets are, together with other performance indicators, almost permanent available to their supervisor via a kind of standard traffic light model of Mediq that indicates if the subordinate is still on track, or not. The statuses of the traffic lights are quarterly evaluated during business unit meetings and, if necessary, discussed with the subordinate, which probably has to adjust his plans to achieve the agreed objectives.

> *"Euhm, het principe is gewoon, hier heb je een kostenniveau afgesproken, en op het moment dat je EBIT, zeg maar, onder druk komt, dan zal je OPEX ook omlaag moeten."*

Although the public listing of Mediq plays an important role in the quarterly evaluation, because they have to present a new forecast to the shareholders, adjusted to actual circumstances, this has no effect on the objectives that are agreed on with the subordinates for the whole year. Subordinates still have to achieve the same objectives and the intermediate evaluation is just to check if they are on track, and to adjust plans if necessary. The yearly evaluation of subordinates for their rewards and compensation keeps being based on the initial agreed objectives.

Besides that every subordinate has his agreed budget, and this is the most important aspect in the individual part of the objectives and evaluation, the other used performance indicators are a combination of financial and non-financial measurement systems. Most of the subordinates have a number of these other performance indicators. Depending on level or position, a few are evaluated on one or some financial performance indicators, but most are evaluated on some non-financial and/or more specific performance indicators, e.g. quality or productivity. The evaluation of these takes place via the same standard traffic light model and in the same routine as the budgets, although for some of these measures the respondent indicates that measurement and evaluation is not as easy and straightforward as for the budgets:

> *"Euh, iemand die in de marketing, bijvoorbeeld, zit, daar kun je heel moeilijk van zeggen, van ja, goed, jij gaat drie campagnes doen met dit successrate, … Dat wordt allemaal al een stuk, euh, softer natuurlijk, hè."*

About hybrid measurement systems no particular information raised during the interview. Thus, however both the financial as well as the non-financial measurement systems are present within Mediq, the respondent raised no indication that they use any instrument in the measurement or evaluation of subordinates that uses a combination of these. It seems that these are only used separately in the evaluation process.

Important remarks that the respondent made explicitly about the evaluation of subordinates is that budgets, and also other performance indicators, are very important to subordinates and the company, the Board of Directors will exercise as much pressure as needed to achieve the agreed budgets, and there exists quite a culture of accountability within Mediq, however not as hard as in American organization cultures, because the performance measurement and evaluation of budgets still counts for only 50% of the total in the evaluation of subordinates. And although it is still 50%, the respondent indicates that the budgets and performance measurement systems are not the most important part in the evaluation process. The other 50% are reserved for a component based on the performance of the group as a whole, so it stimulates the subordinates to achieve better results on, as the respondent calls them, the more 'soft' performances. These are performances in terms of actions and activities taken and leadership behavior.

The high extent of insight in performances of subordinates and what is done with it in case of deviation from the track, makes it an important instrument of (top) management to guide and direct activities and behavior of subordinates. Also the emphasis that is put on the budgets by top management, and the extent to which subordinates are held accountable for their agreed budgets, contributes to the high importance of the component of Cybernetic Controls within the package of MCSs at Mediq.

4.3.2.4 Rewards and Compensation Controls
Mediq implemented the Rewards and Compensations Controls component in various ways by means of both financial as well as non-financial rewards. Although financial rewards are more seen as a mandatory condition, these are still deployed to guide and direct behavior of subordinates. As we will see, this certainly holds also for non-financial rewards.

The formal reward system at Mediq contains different elements, of which variable pay is just one. The respondent gives different qualifications on the variable pay system, which is according to him on the one hand regarded as an important system in motivating and directing attention of subordinates. At the same time he classifies it more as just a necessary condition to have such a system, because it is assumed that employees will not appreciate it if one omits such a system, and as not the most important way in guiding and directing employees, because it has usually only a short-term effect.

As was already mentioned in the section about Cybernetic Controls, the variable pay system is based for 50% on individual performance and for 50% on group performance. The individual component is determined based on the evaluation of performance with respect to the personal budget and personal objectives of the subordinate, which are both agreed on at the beginning of the year. The group component is based on the profit of Mediq as a whole. This should ensure that anyone engages in activities that are not only positive for his own individual assessment, but also positively influence the group results. Therewith it is also an incentive for subordinates to encourage their peers to deliver better performance, because this will result in a higher reward for everyone. Although it is a 50/50 distribution, the group component is by the respondent regarded as the most important component to the company Mediq.

> *"Maar het idee is wel dat mensen voor het grootste gedeelte van hun beloning afhankelijk zijn van hoe wij het als groep hebben gedaan, en niet zo zeer als individueel bedrijf, want dat is natuurlijk ook juist de strategie daar achter dat je wil dat iedereen naar één geheel gaat werken."*

As was also already mentioned in previous sections, the used budgets are applied very strict, particularly regarding determination of rewards. Although there is, partly because of the public listing and the mandatory communication to Mediq's shareholders, a quarterly alignment of the target level for the coming quarter based on the advanced reality, this does not mean that the reference for determination of rewards and compensations for subordinates is also modified. A once agreed upon objective still holds for the entire year and the subordinate will be held responsible for it with respect to his rewards.

Besides financial rewards in the form of the variable pay system, there are also other incentives in the reward system at Mediq. These non-financial rewards have, more than the financial rewards, the aim of committing subordinates. Common prevalent ways of non-financial rewarding are promotions, membership of special groups and getting assigned to certain special projects. After three very good assessments it is a common policy, although not a right, to get a promotion to a higher ranked function in the organization. There is also a policy to assign special projects to subordinates as a kind of reward for good performance. The membership of a particular group exists in several ways at Mediq. Talents that are considered to be important for the organization join a program with intensive coaching of a

member of top management, which should create a sense of commitment to the company, but also be seen as a reward of being able to belong to it. The same holds for a group of 40 most important managers within Mediq. The respondent indicates that organizing and belonging to the Top-40 meeting twice a year is experienced as a huge appreciation for this group.

> *"En dan bedoel ik bijvoorbeeld als wij zoiets als zo'n Top- 40 meeting hebben, dat is niet iets wat direct financieel, zeg maar, euhm, motiveert, maar wat wel moet bijdragen om de mensen echt betrokken te krijgen bij de organisatie. [En ook een blijk van waardering waarschijnlijk, hè, … dat je erbij hoort … als je ook je partners meeneemt op zo'n meeting …] Ja, dus ik zou 'm eerder zelfs als tegenhanger zien."*

The largely present controls with respect to Rewards and Compensations Controls, in a financial as well as a non-financial sense, indicates that, although the respondent also indicates that it is not seen as the most important control, this control is present to an important extent within the total package of MCSs at Mediq. So, within the total package of MCSs the focus is to a certain extent on achieving and subsequently rewarding in various ways the performances of subordinates.

4.3.2.5 Cultural Controls

During the interview the respondent emphasizes several times the high importance of the soft Cultural Controls. That these statements are not simply a view of the respondent is clear from the different conscious and extensive implementations that are used at Mediq, which comprise all three elements – clans, values, symbols – mentioned in the framework in Section 3.3.2.

Implementations that are considered very important within Mediq for the company as a whole, but also for the organization culture as such, are the business leadership programs, which as sole implementations already have a link to all three elements. These programs are focused on the creation and distribution of shared standards and values within the organization under the managers that are considered most important for the company, for now and the future. For the current 40 most important managers, there is the Top-40 meeting, during which they meet each other, partners included, for a weekend twice a year. For the managers of the future there is a special program for upcoming talents within the company, in which they are intensively coached for a year by an assigned member of top management.

> *"Ja. Nou ja, kijk, zoiets als dit, hè, dus dat je topmanagement bij elkaar brengt, dat is een, ja, soft-control, maar die wel belangrijk om mensen te motiveren, maar ook om gemeenschappelijke waarden, zeg maar, proberen te creëren. En datzelfde geldt ook waarom binnen Mediq, bijvoorbeeld, toch wel belangrijk wordt gevonden dat, in ieder geval talenten carrière kunnen maken, … is natuurlijk ook omdat je wilt dat die mensen, zeg maar, ja, bepaalde waarden en normen binnen de organisatie gaan uitspreiden."*

Another function of the business leadership programs is to create a foundation for a long term relationship with the most important personnel. In this way one wants to give this group of personnel a feeling of belonging by involving them in the establishment of the policy to perform, and give them insight in their career perspectives within Mediq. One tries in this way to bind the important people that are participating in these programs for the long-term.

> *"(…) voor die soft controls heb je natuurlijk op het moment dat je mensen langer aan je organisatie bindt, en zo toch perspectief biedt, dan is dat uiteindelijk ook beter voor je organisatie."*

As said, these business leadership programs are part of all three elements of the Cultural Controls. Regarding clans, employees in the business leadership programs are part of a kind of subgroup within the company, with its own ceremonies, rituals and exclusivities. The values element is very strongly

present in the programs, because creation and distribution of shared standards and values is one of the main purposes of these programs. Also the symbols element is present to some extent in the business leadership programs, because employees participating in it are a kind of role model for other employees and for the company.

For the clan control element, when the company as a whole is considered as a clan, the sense of belonging to that group is supported by the component of 50% in the rewards and compensation system that is based on the group result. This should ensure that anyone engages in activities that are not only positive for his own individual assessment, but also positively influence the group result. Therewith it is also an incentive for subordinates to encourage their peers to deliver better performance, because this will result in a higher reward for everyone.

> *"Maar het idee is wel dat mensen voor het grootste gedeelte van hun beloning wel afhankelijk zijn van hoe wij het als groep hebben gedaan, en niet zo zeer als individueel bedrijf, want dat is natuurlijk ook juist de strategie daar achter dat je wil dat iedereen naar één geheel gaat werken."*

Where the business leadership programs are part of the values element, mainly through changing the values of current employees to fit the organizational values by socializing within the organization, the values element of the Cultural Controls is also implemented in the recruitment of individuals with particular types of values already matching with those of the organization and by explicating the values to let employees behave according to them, even if they do not adhere to them personally. Regarding recruitment there is, of course, the selection of plain new personnel, who must fit to a certain extent to the organization from the beginning, but there is also a policy within Mediq to fulfill job vacancies preferably by internal promotions. This serves, besides the binding of important personnel for the long-term for their expertise and experience, also the guarding of the organizational culture, which eventually was already transferred to them since the business leadership program for talents. Explicating values to employees to let them behave according to them happens through the code of conduct, which was already discussed in the section about Administrative Controls, and through the mission and vision statements that are communicated.

The building itself of the headquarter of Mediq can be considered as a visual symbol. It is designed as a very open structure with lots of 'glass walls' and office landscapes. Existing doors are usually open and meeting rooms of top management provide a wide look to the outside landscape. The respondent confirms that this design was deliberately chosen to radiate transparency and approachability under the personnel.

In sum, we can conclude that at Mediq one is very aware of their organizational culture and uses Cultural Controls in many ways to guard and distribute their organizational culture constantly under their personnel. The respondent also supports this with arguments why the Cultural Controls are regarded the most important controls in guiding and directing subordinates. This makes the Cultural Controls a very important component in the total package of MCSs at Mediq.

4.3.2.6 Summarized
After discussing all MCS components separately, the individual results are summarized in Table 8 to give an overview of the total package of MCSs at Mediq. The comparison of this package at Mediq with the packages of the other companies in the sample, to answer the central research question of this thesis, follows in Chapter 5.

MCS package component	Importance of component
Administrative Controls	MEDIUM
Planning Controls	HIGH
Cybernetic Controls	HIGH
Rewards and Compensation Controls	HIGH
Cultural Controls	HIGH

Table 8: Importance of components within package of MCSs at Mediq

4.3.3 Tight or loose controls at Mediq?

To judge about the tightness of the implemented controls at Mediq, it is necessary to check if the individual implementations meet the criteria for tight controls, discussed in Section 2.5. Per control component this check is discussed in the following sections and results are summarized in Table 9.

4.3.3.1 Administrative Controls tightness

The Administrative Controls existing within Mediq consist, as discussed, mainly of the distinguished elements governance structure and policies and procedures, and less of organization structure. The discussed implementations of governance structure belong to the pre-action type of control and therefore have to meet the criteria (1) frequent, (2) detailed, and (3) performed by informed person(s). Part of the governance structure is the extensive and structured system of meetings within Mediq. As explained, there are many of them with different corresponding intervals up to even weekly, which makes it satisfying the 'frequent' criterion for tight controls. About the level of detail of the meetings no explicit information is available from the interview, but for the meetings implementation the third criterion – performed by informed person(s) – might give some indication that these are performed with a medium level of detail, because the composition of the meetings is relatively narrow. This means that only few layers of management are represented and middle managers and experts are represented by their business unit manager or staff functions. This might implicate some limitation on the level of detail. The same holds probably for the extent to which the members of the meetings can be considered to be informed persons, because the exact and full specific knowledge about all topics might be available with the lower level managers and experts, but it can though be reasonably assumed that the responsible and representing managers, who are members of the meetings, are sufficiently informed to be classified as informed persons for tight control.

Other implementations of the pre-action control type within the Administrative Controls are the installed levels of authorization and segregation of duties for the governance structure element and the work rules, policies and standard operating procedures, which describe things like minimum requirements for investments, risks to be avoided, etc. The respondent indicates that these are applied to a high extent and occur often. This implies that the criterion 'frequent' is met for these implementations. About the level of detail and whether these are performed by informed person(s), explicit information from the interview is lacking. Yet, there seems no reason to suspect that these criteria are not met, because the respondent indicates that these implementations are considered important and he did not hint on problems with this. Moreover, it can be reasonably assumed that when decisions must be approved and signed by several people, possibly from higher layers, that these are informed person(s). Thus, these implementations seem to meet the criteria for tight control and therefore can be regarded as tight implementations within the Administrative Controls.

Within the policies and procedures element there is also the implementation of the company's code of conduct, which is considered, as explained, of high importance. This is an implementation of the action accountability type of control, which has the criteria (1) congruent, (2) specific, and (3) effectively

communicated and internalized for the definition of a tight control. Regarding this, it can be reasonably assumed that it is defined congruent with the true organizational objectives, because one considers it as important and it will be handed over to every new employee. In that case it would be ridiculous and inconsistent if one constantly hands over this kind of documents that do not reflect the true organizational objectives. With respect to the specificity, the respondent gives the impression that it gives a clear guidance to subordinates about what behavior is expected from them, instead of just giving a vague guideline, but explicit information about this is lacking. The effective communication and internalization of the code of conduct is performed very well, because it is already handed over in hard copy to new employees before they start their job, and adhering to it is a kind of condition to qualify for a job within Mediq.

Although sanctions on noncompliance do certainly exist, presumably there is no active detection of noncompliant actions, but there exists a kind of trust that one complies. This might imply a more passive detection of noncompliance, in which the open structure and informal atmosphere is supportive. The probably lacking of active action tracking decreases the level of congruence of it, because it is not sure whether one tracks all actions they want, or should have, to track. For the criteria precise, objective and timely applies that in cases that actions are tracked, it can be precise, objective and timely enough, but at first it is necessary that these, especially the noncompliant actions, are tracked at all. As it seems from the information available from the interview that there is no clear action tracking system defined, the criterion understandable is not met. In sum, the action tracking corresponding to the implementation of the code of conduct seems to undermine the tightness of this control.

The rewards and/or punishments linked to the actions with respect to the code of conduct can surely be significant, since these can even be up to dismissal. However, to what extent these are direct and definite, or to what extent there is compassion, is unknown, mainly because it is also unknown to what extent noncompliant actions are tracked at all. Looking at the implementation of the code of conduct it seems that, although it is considered as an important instrument, and one considers it as important that subordinates adhere to it, many of the criteria for tight control are not met, especially regarding the action tracking. This implies that this implementation can only be classified as medium tight.

As described in the previous section, there are not many implementations within the organization structure element of the Administrative Controls at Mediq. The described 'implementations' are the company information system and the informal circuit. These two are examples of the behavioral constraints type of control, which has as criteria for tight control (1) reliable and (2) restrictive. The respondent indicates that the company information system is a system in which subordinates, with their own permissions, can find relevant information for them, no more and no less, so it can be considered reliable as well as restrictive. The mentioned informal circuit, which is said to be an important and common communication channel within the company, certainly not meets the criteria reliable and restrictive, because there is no control possible on which information is exchanged during informal talks. This is supported and amplified by the open design of the building. The two implementations within the organization structure are therefore very contradictory and make it together only a medium tight implementation of control at maximum.

Altogether, the Administrative Controls consist of many implementations, of which some are applied tighter than others. Especially the implementations within the governance structure element are applied tight. For the others one or more criteria for tight control are not satisfied, and the respondent also mentions that, more or less, even when implementations like the code of conduct and the informal circuit are controlled very strict, these kinds of rules are still always cheatable, and that trust is a much

more important aspect. So, the Administrative Controls as a whole are applied only to a medium level of tightness.

4.3.3.2 Planning Controls tightness

The tightness of the Planning Controls must be determined with the criteria for tight results controls, which are for the definition of these controls (1) congruent, (2) specific, and (3) effectively communicated and internalized. The objectives are important aspects within the long-term as well as the short-term planning, so with respect to the criterion 'congruent ' it might be assumed that these are congruent with the true organizational objectives. However the long-term planning is quantified as much as possible, it is naturally more general, where the short-term planning is more specific and includes many things that give direction to subordinates. But, for its own purposes those distinguished plans are sufficiently specific. Measurement of results with respect to the planning, or in other words the reviewing and adjustment of plans, is done on a 2-year interval for the long-term planning and a quarterly and (partially) yearly interval for the short-term planning, which is not quite often, but the respondent gives no indication that it is not timely enough. The results regarding to the initial plans are presented in the so called traffic light models, which is a very understandable way of presenting the status to subordinates. Whether the underlying methodology is understandable as well is not clear from the interview, but this might be of less importance to the person(s) it concerns. Because of the high extent to which one attempted to quantify the strategic and tactical plans, it is possible to do the measurements precise and objectively. Furthermore, this makes it easier to measure what one desires to measure, or in other words the criterion 'congruent' can also be met. The rewards and/or punishments for the person(s) involved, linked to accomplishment of plans, are via the personal objectives directly linked with the reward system, and thus affect all possible rewards discussed in the previous section. It can be imagined that these can be of significant impact to the subordinates. The respondent also indicates that the link with the rewards is based on predefined criteria and without adjustments to actual circumstances, so there is no room for buffers or excuses, which means a direct and definite link between results and rewards and/or punishments. Thus, we have seen that the Planning Controls component meets the criteria for tight results controls, so it can be considered to be a tight implementation.

4.3.3.3 Cybernetic Controls tightness

Within the component Cybernetic Controls the element budgets is the most important at Mediq, followed by the non-financial and financial measurement systems. Because the implementations of these are more or less applied in the same way and, as described, evaluated and treated in the same routine by the management, these are taken together in the following review on their tightness, in which occasional exceptions will be mentioned separately. The implementations of the Cybernetic Controls are of the results controls type and therefore have to meet the corresponding criteria for the definition and measurement, and the rewards and/or punishments linked to it.

The definition can be regarded as congruent with the true organizational objectives, because these are established during the planning process by translating the organizational objectives into personal objectives, containing the defined budgets and performance measures. The budgets and measures indicated by the respondent are of a specific nature, e.g. profit, quality or productivity, although these are not the same for every subordinate. Especially for the budgets these are also specific because there is the link between objectives and established budgets. Since the budgets and performance measures are mutually agreed on with the subordinate, these are effectively communicated and internalized.

For the measurement of results afterwards the respondent declares that in some cases the measurement of non-financial performance measures might be problematic with respect to the criteria congruence, precise and timely. This is especially the case when measures depend on facts or figures in the external environment, e.g. market share. Limitations are that, according to the respondent, it is not always sure what factors did influence the results that were measured, it is not sure if the measured results were indeed the product of actions by subordinates, and the time-lag which often exists between the actions undertaken and measurement of results. Because of the quantitative nature of the performance measures, the objectivity and understandability should be no problem in case of the non-financial performance measures. The budgets and financial performance measures on the other hand seem to satisfy all criteria with respect to the measurement of results. Also for these it holds that the quantitative nature helps to measure what is desired to measure, or in other words to let the measurement be congruent, precise and objective. Measurement of budgets and financial performance measures seems to be available on a timely basis, because the respondent indicates that these are part of the quarterly evaluation, and supervisors and top management also have a more continuous overview of performances. As was already explained in the section about Planning Controls, the understandability is high because of the simple and visual standard traffic light model that is used at Mediq. The measurement is also extra understandable because of the straightforward individual measures that are used.

Equal to the corresponding rewards and/or punishments on the accomplishment of plans, the achievement of established budgets and targeted results on financial and non-financial performance measures is directly linked with the reward system, and thus affects all possible rewards for subordinates. These can thus be significant not only in the form of financial rewards, but also things like promotions depend on it. The link between rewards and results is based on predefined criteria and once agreed on objectives are not subject to changes with actual circumstances, so there is no room for buffers or excuses, which means a direct and definite link between results and rewards and/or punishments. So, apart from some difficulties with the measurement of results regarding non-financial performance measures, all criteria for the implementations within the Cybernetic Controls seem to be met. Since the non-financial performance measurement systems are not the most important element within the Cybernetic Controls, and one is aware of the difficulties and tries to deal with them as well as possible, the applied Cybernetic Controls can together be considered as a tight implementation of a results control.

4.3.3.4 Rewards and Compensation Controls tightness
Because of the close relation with other controls, many of the criteria for tight controls applicable for the Rewards and Compensations Controls are already discussed in previous sections, especially for the measurement of corresponding results and the linked rewards and/or punishments. These are not omitted here, but simply repeated shortly. This natural results control will be examined on the criteria applicable for that type of controls (see Table 1).

With the conscious break-up of individual and group results within the assessment of subordinates, the company aligned the rewards and compensations with the true organizational objectives, in which working together on the result of the company as a whole is an important aspect, so this control can be considered to be defined congruent. Although it was not mentioned explicitly in the interview, possible rewards, which can be earned with certain achievements, seem to be defined specific, since the respondent mentioned that these depend on predefined criteria, these increase when results are better, and because he indicated that there is a kind of unwritten policy that subordinates can expect certain 'consequences' of consecutive good or bad performances. Also because of the abovementioned

arguments the rewards and compensations system seems to be effectively communicated and internalized.

As mentioned earlier, the quantitative nature of agreed objectives and corresponding performance measures improves the ability to let the measurement be congruent, precise and objective, and the respondent gives no reasoning to suspect that the measurements fail on these criteria. Whether the measurements are timely enough to resort one of the effects that is meant with rewards, namely to let subordinates improve their performances in the future by giving rewards as a kind of feedback, is not clear, because these take place only once a year. This can imply that activities or achievements corresponding to rewards happened quite a time ago, so the learning effect might be less or even too late. The criterion 'understandable' was already discussed with the Cybernetic Controls; the way of presenting measurements via the traffic light model is certainly understandable for the person(s) involved. Although not expected as a problem, the data behind these models might be somewhat more complex, but still understandable in case it is necessary, because the performance measures used are quite straightforward.

The criteria for corresponding rewards and/or punishments are also discussed with other controls. Rewards and/or punishments, which are part of the formal rewards system and are linked to the achievement of agreed objectives, can be significant to subordinates, because those directly influence their variable pay, even up to 15% of their total salary, and can include important steps in their careers. The direct and definite link of rewards and/or punishments to results is also met, because the respondent indicates that rewards increase gradually with better results and in the determination of rewards no excuses for external circumstances are permitted with respect to unaccomplished results. In the above discussion we have seen that the necessary criteria for tight results controls are met to a high extent for the implementation of the Rewards and Compensations Controls at Mediq, so it can be considered as a tight control.

4.3.3.5 Cultural Controls tightness

In Chapter 2 it was explained that the effectiveness, or in other words the tightness, of the Cultural Controls is often difficult to assess, but is generally a function of the certainty and stability of the knowledge available to link the control mechanism with the solution of the existing control problems. According to statements of the respondent, the organizational culture is the most important component in the package of MCSs at Mediq to guide and direct subordinates. To keep the culture stable, which has the potential to increase the tightness of the control, the important values are distributed through the company on a permanent basis via various programs. Also the policy of internal promotions contributes to the stability of the culture. One of the aims of the mission and vision statements, declared by the respondent, is to encourage the feeling of belonging and commitment by the personnel to the common objective for the company as a whole. Besides the values, also the mentioned clans and symbols implementations are continuously reinforced to keep the existing culture alive and stable. That the respondent not only states that they have the intention to guide and direct the behavior of subordinates via the Cultural Controls, but that these also actually contribute to the deployment of desired actions, is a good indication that the culture is not only stable, but that the degree of certainty to which they know that the culture fits with the desired actions is also high, and thus for the tightness of the implemented Cultural Controls at Mediq. So, based on this, it can be concluded that the various ways, described in Section 4.3.2.5, in which the Cultural Controls are applied together form a tight implementation.

4.3.3.6 Summarized

After discussing the tightness of all MCS components separately, the individual results are summarized in Table 9 to give an overview of the total package of MCSs at Mediq.

MCS package component	Tightness of implemented component
Administrative Controls	MEDIUM
Planning Controls	HIGH
Cybernetic Controls	HIGH
Rewards and Compensation Controls	HIGH
Cultural Controls	HIGH

Table 9: Tightness of implemented MCS components at Mediq

With respect to the tightness of the total package it is important to note that it is not simply a matter of averaging the 'scores' on the individual components to get the tightness of the package. For a package it is already possible to be tight, for example, if only one component is applied tight to a high extent. However, a tight implementation of one or more components does not necessarily mean a tight package, because a loose implementation of another component at the same time can undermine this tightness. It is also still possible to have a tight package if none of the components is applied tight to a high extent, but the components are fully complement to each other and form a tight package together. The tightness of the package of MCSs depends on the extent to which it is able to increase the likelihood that organizational objectives are achieved. The comparison of this package at Mediq with the packages of the other companies in the sample, to answer the central research question of this thesis, follows in Chapter 5.

4.3.4 Conclusion about Management Control Systems package at Mediq

It has been shown that at Mediq both the hard controls as well as the soft controls are certainly present in the package of MCSs. Although hard controls cover a large part of the existing package of MCSs, one assumes the soft controls as the most important controls. One assigns great value to its culture with shared values and standards, and to retaining the most important personnel for the long term. In order to ensure that these aspects are maintained for the company, Mediq applies two formalized business leadership programs, which are examples of the Cultural Controls, which in turn belong to the soft controls. To ensure that the personnel that retains in this way also achieves the desired results, Mediq has established a number of hard controls. Subordinates of top management have to agree upon a budget for their objectives for the coming year and they have an incentive in their rewards by means of a variable bonus, which depends on their performance relative to their budget. This is an example of the hard controls. Other examples of hard controls that are present at Mediq are that one emphasizes on the code of conduct, there are guidelines regarding profitability of investments and there are restrictions on the authority of subordinates for investments. To enforce that subordinates comply with these controls, there is a system with sanctions for noncompliance to the rules. So, the final conclusion is that the focus within the configuration of the package of MCSs is on both the hard and the soft controls, but the hard controls are more regarded as supportive to the soft controls.

If we look at the dimension of tightness of control, then it can be concluded that there are tight as well as less tight controls. Because most MCS components in the package are designed tight, the total package seems to be tight too. Moreover, the respondent gives no reason to suspect that the implemented MCSs are designed insufficiently tight, and thus give insufficient certainty in achieving the company its objectives. At the same time the package contains implementations of MCSs that are potentially undermining to the tightness of the package, such as the lack of accurate action tracking of

the Administrative Controls and the described informal circuit or information exchange. Altogether it can be concluded that the package of MCSs at Mediq is applied tight, but its design is also partly based on trust and thus sensitive to circumvention.

4.4 Control at Dutch company Nedap

Nedap is the second of two Dutch companies in the sample of four companies in this study.

4.4.1 The company Nedap

Nedap was established in 1929 and is based in Groenlo, the Netherlands. It has more than 650 employees and subsidiaries in China, Hong Kong, Dubai and in several countries in Europe. Since 1947 it is listed on the NYSE Euronext stock exchange.

Nedap is a manufacturer of intelligent technological solutions for relevant themes like sufficient food for a growing population, clean drinking water throughout the world, smart networks for sustainable energy.[10]

It concentrates hereby on the development and delivery of distinctive and durable:
- Solutions for computerization and management of operating processes, whereby recognition of persons, animals and goods as a rule play an important role, and
- Products whereby power and control electronics play an important role.[11]

Some examples of products are detection gates in stores, security management systems like access control for buildings or protection against burglary and automation systems for the agri-business.

Nedap has different business units, so called market groups, each of which focuses on its own market. Each market group functions as an independent enterprise and is responsible not just for the development of its products, but also for their marketing and sales.[12]

(See also Annex 2 for facts and figures about Nedap)

4.4.2 What Management Control Systems are important at Nedap?

Following the method described in Chapter 3, to determine whether Nedap has the focus on hard or just soft controls, it is necessary to check which MCS components that are treated during the interview, are applied at Nedap and which are judged by the respondent to be the most important in his company.

If we look at the MCSs within the company, then there exists a kind of 'anti-MCSs'-attitude against MCSs in general. Already from the moment of contacting the company to participate in this research, the CEO responds regarding the subject of MCSs with "we don't have them" (*"die hebben we niet"*) and "we don't use them" (*"daar doen wij niet aan"*). During the interview he gives several reasons for this, both regarding MCSs in general: "we have no formal processes" (*"we hebben geen formele processen"*), as well as regarding some specific MCSs we discussed.

In general, he says that in his opinion it is not possible at all to be 'in control' and that it therefore does not make sense to put your efforts in it. His interpretation of 'being in control' is that top management is aware of every action of everyone in the organization and has given permission for this in advance:

> *"Het enige wat jij kan regelen, als bedrijf, als je heel goed je best doet, dat niemand een stap zet in je organisatie, zonder dat ze van tevoren toestemming hebben gekregen. Dat is het maximum wat je kan halen."*

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[10] http://www.nedap.com/about-nedap/company-profile/, visited on 21-3-2012
[11] Half-yearly report Nedap 2011
[12] http://www.nedap.com/about-nedap/company-profile/, visited on 21-3-2012

This means, according to him, that one can only prevent that certain actions occur that are wrong or incorrect in the eyes of top management, but vice versa it does not work. Being 'in control' gives no guarantee, according to him, that employees do everything what is the best for the company:

"Dus dat betekent dat je nooit controle hebt over de dingen die hadden moeten gebeuren, maar niet zijn gebeurd."

When you are 'in control' there is in his opinion no room for creativity and innovation. Exactly these are qualities which one at Nedap consider as important to be successful. Therefore, he has the opinion that one should not even strive for being 'in control' anyway:

"Nee, natuurlijk niet. Dan wordt je nooit positief verrast."

This would imply that neither hard nor soft controls are applied at Nedap. During the interview the respondent emphasizes though the importance of the culture at Nedap, which indicates that he does not assume this as an MCS or not realizes that this is a kind of MCS. Regarding the different components of hard controls, the respondent indeed explains the largely non-existence of them. His emphasis on the importance of the existing culture at Nedap indicates that the emphasis within Nedap is on the Cultural Controls, or the soft controls. Hereafter the various MCS components are discussed in succession. Based on the data collected during the interview, supported by quotes of the respondent, it is indicated to what extent these MCS components are applied at Nedap and how important these are considered.

4.4.2.1 Administrative Controls

About the Administrative Controls it can generally be said that these are very rare at Nedap and, guided by important principles within the company (being creative and innovative is important), in many cases even consciously avoided. This applies in particular to the elements governance structure and policies and procedures, but to some extent also to the organization structure.

There is virtually no governance structure present in the sense of a system of meetings or structural work consults to ensure that subordinates co-ordinate their activities. According to the respondent these are only time consuming and do not support taking better or more sensible decisions. Thinking and talking more about a decision will not prevent that sometimes mistakes or wrong decisions are made. Thus, one can better take much more decisions in a shorter time and accept that one sometimes makes a mistake. The belief is that when you hire employees, as part of the Cultural Controls, who are capable to make sensible decisions, you simply have to give these employees the opportunity to do that.

"Bij heel veel organisaties hebben ze een heel verhaal om de kwaliteit van de beslissingen te vergroten. Nou, één ding is zeker, die kwaliteit van die beslissing die wordt niet beter, maar het gaat alleen maar langer duren. Dus, waar wij heel sterk in zijn is dat wij liever heel snel veel beslissingen nemen, dan proberen een paar grote beslissingen, heel veel tijd diep over na te denken. Dan leer je gewoon veel meer. Dus heel veel beslissingen worden op de hoek van een bureau aan het einde van de dag even besloten. Wat gaan we nou doen? Moeten we dat doen? Laten we dat maar doen. Dus dat is, dat is heel, heel anders dan bij veel andere organisaties waar mensen gewoon te beroerd zijn om beslissingen durven te nemen. Dus die, en het belangrijkste reden waarom ze geen beslissingen durven te nemen, doordat zij niet durven te accepteren dat je het soms fout kan hebben. Dat kan niet. Je mag bijna geen fouten meer maken. Dat kost je kop. Verkeerde beslissingen nemen. Dan raak je heel erg verkrampt."

"Maar, stel je voor, kijk, een van de modellen is dat wij zeggen, luister, die organisatie die in staat is om echt het toptalent binnen te halen, die gaat winnen. Dat zegt iedereen. Bij ons is het zo, dat jij een organisatie hebt, waarbij je heeeel veel ruimte krijgt om je eigen ideeën te hebben. We hebben heel duidelijk dat wij, hè, wij geven hem purpose, doelstellingen, en doelstellingen heeft niks te maken met geld, maar we willen impact hebben."

"Dat is het doel. Hoe we dat doen, dat is absoluut toptalent binnenhalen, mensen verschillen steeds meer, die standaarddeviatie wordt steeds groter. Die groep mensen binnenhalen, en die moet je eigenlijk purpose geven, power, om beslissingen te nemen, en possibilities, mogelijkheden."

"Het gaat erom dat je slimme mensen hebt, en een organisatie biedt waarbij die slimme mensen ook daadwerkelijk dingen kunnen doen."

"Wij hopen alleen mensen aan te nemen die, die zo verstandig zijn om in ieder geval als ze fouten maken, dat niet bewust doen, of door stupiditeit dingen doen. Er kunnen dingen anders zijn, dat kan gebeuren. Dingen die je van te voren niet kunt verzinnen, dat kan gebeuren."

Co-ordination among subordinates and decision making all takes place during the work. Important is that one deposited a lot of autonomy for this to the subordinates, because one also assumes that if you work for Nedap, you are capable to take sensible decisions yourself. All in all, the controls of the governance structure element are consciously avoided, because these are time consuming and will not lead to better results, according to the respondent.

About the organization structure element not much information raised from the interview. It became clear that there is a very flat organization, without many layers of management and with a high degree of freedom for subordinates to take sensible decisions. There are no indications that the organization structure inherits characteristics that encourage letting certain types of contact or relationships between subordinates and/or their supervisor be self-evident. The aim of organization structure – reducing variability in behavior and, in turn, increasing its predictability – might be even conflicting with the characteristics considered important within Nedap – creativity and innovativeness.

Particularly in the element of policies and procedures, controls exist only in some rare appliances at Nedap. The respondent gives different reasons for the conscious avoidance of these. On the one hand he states that these are not even necessary, because of some natural elements in the culture of the region where Nedap is located (eastern part of the Netherlands):

"Wij hebben in deze organisatie, en dat is een heel groot verschil van veel westelijke organisaties, wij hebben een soort natuurlijk gevoel, een natuurlijke gemeenschapszin. Bij heel veel andere organisaties is het eerst het individu, dan de groep, dan het bedrijf. Bij ons is het omgedraaid. Het bedrijf is het belangrijkst, dat hoort erbij, dan de groep en dan de persoon. Dus, hoe stimuleer je het samenwerken? E dat je collegiaal moet doen? Dat stimuleren we niet, maar dat is er gewoon zo. Ja, en dan zie je dan "maar waarom helpt die man hem?" Hè? Dan zie je één of andere man, die heeft een eigen doelstelling, maar die helpt een andere collega even. Waarom help je hem? Ja, omdat die het vroeg. En bij heel veel andere organisaties, "Ja, maar what is in it for you?", "Niks, maar hij vroeg me het, dus dan doe ik dat". Dus d'r zit een bepaalde gemeenschapszin aan deze kant van het land die zo bepalend is voor de cultuur binnen dit bedrijf, zo fundamenteel een uitgangspunt is, waardoor je dat niet in regels hoeft vast te leggen, die in het westen van het land wel noodzakelijk is."

On the other hand he indicates that they not even want to install, for example, rules and policies. Although, according to the respondent, the absence of rules is no guarantee that everyone works in harness on common organizational objectives, it is a conscious choice not to install rules only for some dissidents. The norms and values associated with the culture of Nedap are clear and when dissidents do not change or improve after a warning, they have to abandon the field, instead of letting good employees suffer from behavior of the bad by the installment of rules. According to the respondent, rules would namely only result in a limitation of their freedom, creativity, innovativeness, etc., and therewith not serve the interests of the company.

"Ik zie kerels die het iedere keer net verkeerd doen. Die kerels daar moet je niet de regels voor aanpassen. Die kerel moet je een paar keer waarschuwen en daarna moet je 'm ontslaan. Ik ga niet de rest van de organisatie lastig vallen

met regels voor die één of twee mensen. Dat doen de meeste mensen niet. Die gaan dan regels invoeren. Die willen in control zijn. Moet je niet doen. De prijs die je daarvoor betaald is dat mensen zich gaan gedragen naar de regels."

As discussed and supported by arguments of the respondent, Administrative Controls are consciously not applied at Nedap. Therefore, those are of low importance and have certainly not the focus within the package of MCSs. As we will see later, the Cultural Controls have an important role in substituting the Administrative Controls to achieve its aims.

4.4.2.2 Planning Controls

Regarding the component Planning Controls, the strategic long-term as well as the tactical short-term, the respondent gives reasoning that this is done only superficial. For both, long-term and the short-term, most important is that there is a common objective for the company, in the form of a mission statement: "Moving markets with technology that matters". This is communicated as the guideline for all employees in their activities to undertake. The only other indication from the interview about an existing planning implementation within the company is that the respondent, the CEO, answers on a question that his direct subordinates roughly know what to do for about one year, in the imaginary case that he has to withdraw immediately after a fatal accident. This indicates that there is some kind of (medium-) long-term planning on headlines for only one year, which might be assumed to be no more than only the continuation of ongoing projects and activities.

"Dus is denk dat, weet je, het eerste jaar heb je het effect niet. Het loopt gewoon door. We hebben dat plan met iedereen en dat wordt gedaan door de marktgroepleiders. Dus wat dat betreft zijn wij veel minder kwetsbaar, dan een organisatie waarbij je echt planning en control hebt. Als die man op vakantie gaat ... Ik ben afgelopen zomer, ben ik vier weken op vakantie geweest in Amerika. Ik heb, weet je, dat gaat allemaal gewoon door."

Absence of a formal system of Planning Controls to guide and direct subordinates is supported by all kinds of planning implementations that are explicitly mentioned as deliberately avoided. The respondent argues that no objectives and/or accompanying resources, or any structure of budgets is used, because he has the belief that these work only counterproductive. The idea is that employees in such a case only try to behave and perform according and limited to the objectives, resources and budgets, instead of trying to outperform and taking the most sensible decisions in the interest of the company, which is the attitude asked from the subordinates by Nedap. The process applied instead is a more ad hoc process in which subordinates are encouraged to come up with good ideas and, eventually after sparring shortly with the CEO, for example, take a sensible decision, without the need to prepare an entire comprehensive plan with associated needed budgets. This way is consistent with what is already mentioned above for Administrative Controls about the preference of taking many decisions in a short time, instead of thinking and discussing a lot about one decision and still have the chance of taking the wrong decision.

"Euhm, targets, nou, één ding weet je zeker, dan krijg je de werkelijkheid nooit meer te horen. Dus als je 10% hebt afgesproken, gaat die man als die merkt dat het target vast, oh, och, och, ach, ach, wat is het moeilijk in de markt. En die gaat op 10%, oh, daarboven stoppen, anders krijg ik volgend jaar een nog hoger target. Ben je helemaal gek. Dus het hele bedrijf is kapot."

From this discussion it becomes clear that the component Planning Controls has no emphasis within the package of MCSs at Nedap. It appears that it is even a component that is avoided as much as possible.

4.4.2.3 Cybernetic Controls

For the Cybernetic Controls it is too rigid to state that these are not used at all, but the implementations are very few and, according to the respondent, better not used for a guiding and directing purpose. Only budgets and financial measurements are the elements that are implemented to some extent. Regarding

budgets it can be said that these are only used very superficially. As was already mentioned in the Planning Controls section, before a particular project is initiated, or investment is done, only a rough estimate of needed resources is made in a kind of informal setting and the, much more important, consideration is made if it is a sensible decision, keeping the rough estimate of needed resources in mind. According to the respondent, an important condition for working like this, which is present at Nedap, is the fact that cash is never a problem in case of sensible decisions.

> *"Maar, we hebben ook voldoende geld, dat als het soms verstandig is om even te versnellen, dus die kerel heeft het ..., en dan, weet je wat, je moet niet 1 ontwikkelaar nemen, je moet 3 ontwikkelaars nemen, ... Ga maar aan de slag. Dat zijn dingen die we doen."*

As a kind of a financial measurement system, they use only one KPI, which is considered as an important indicator of the extent to which employees make sensible decisions. It is defined as the Added Value Per Employee (AVPE) and is calculated from, and based on, the profit and loss account, which is kept up by every employee (or small group of employees), themselves. This AVPE is also used by the CEO in the determination of rewards for assessing subordinates, but only as an indication, and with a great sense and knowledge about the 'how' these figures became realized by individual employees. Despite the aforementioned KPI AVPE is an important measure to assess if employees take sensible decisions, they do not use it as an instrument to give employees direction. Again, the idea is that with directing on figures employees do not perform better:

> *"het geeft veel meer een denkrichting dan dat dat een absoluut getal is hoor. Bij absolute getallen gaan mensen domme dingen doen."*

> *"Dus toegevoegde waarde is bij ons een heel belangrijk getal, maar we weten ook wat daar achter zit. Je moet door die cijfers heen kijken. Op het moment dat jij je business op dit soort cijfers stuur, dan ben je een sukkel."*

> *"(...) Kijk, je stuurt nooit op cijfers, je stuurt op activiteit. Doe je iets wel of doe je iets niet? Dat is waar je op stuurt."*

From the information provided by the respondent that the above two simple implementations of budgets and financial measures are the only ways in which Cybernetic Controls are applied, it is clear that non-financial and hybrid measurement systems are not used. At the same time the only simple, subjective and ad-hoc way in which Cybernetic Controls are implemented and used makes clear that the Cybernetic Controls do not play an important role within the package of MCSs at Nedap in guiding and directing performances and behavior of subordinates.

4.4.2.4 Rewards and Compensation Controls

When we look at the Rewards and Compensation Controls component, then it becomes clear that at Nedap there is also no formal evaluation and reward system. This is a deliberate choice of top management too. The idea behind this is that research has shown that 80% of people think that they perform at or above average. So, in a formal system in which employees are assessed relative to each other, one will always demotivate a very large group. Therefore, the CEO does the evaluation himself, he does this annually and mainly subjective. According to him it is not good to base this on figures, because these only represent a reality, which is dependent of many factors and he thinks that it is better that all these factors are taken into account and explained to the employee in question.

> *"(...) En we hebben ook nog individuele beloningen (...). En daar hebben we geen systeem voor. Nee, want ik bepaal. Dus ieder jaar hebben we een gesprek waarin ik zeg 'ik vind dat dit het verhaal is'. Dat schijnt het beste te werken. Het minste demotivatie op te leveren."*

"Dat kan ik alleen maar doen als ik weet wat die man doet. Dat kan ik niet op basis van cijfers doen. (…) Dus je doet het met veel wijsheid."

As an extra ('objective') assistance for evaluation, the aforementioned AVPE is an important measure to indicate if an employee (or a group of employees) takes sensible decisions:

"Brutomarge per medewerker. Dat zegt alles. Dus op het moment dat je fantastische mensen hebt binnen organisaties, op het moment dat je weet dat ze goed zijn, maar ze hebben een lage toegevoegde waarde, doen ze domme dingen."

Nonetheless, when considering the AVPE it is, according to the CEO, as already cited, of great importance to know how this AVPE is build up and why it has this value for this (group of) employee(s). Blindly comparing AVPE's of different employees or different groups is impossible in this case. This emphasizes again the subjective character of the evaluation of employees.

That the CEO indicates that he can only do the evaluation in this way if he 'knows what that man is doing' (*"weet wat die man doet"*), is no problem because of his way of working within Nedap. He is also able to know what that man does, because he provides himself the ability to do a lot of walking around within the company and 'sparring' with his employees. In this way he is aware of what his employees are doing and how they do that, and is able to do the evaluation of employees in the way he does.

Part of the reward system is some sort of participation project for employees, in which employees can choose to let a part of their profit sharing be paid in shares. By obtaining shares in the company the employee becomes for a small part owner of the company. Although there is no obligation in it, it is a kind of control, which is aimed for emphasizing the entrepreneurial attitude that is asked from the employees. In addition, employees are encouraged in this way to act in the interest of the long-term performance of the company, because the shares are first held in a foundation for 4 years. It can also be considered as a kind of a clan control to create a feeling of belonging to a group, which is part of the Cultural Controls, and therefore discussed in the next section.

Although Nedap has a system of variable pay, which can be assumed to be implemented to motivate employees in performing better, the lack of a formal evaluation and reward system in which employees are aware on beforehand on which performance indicators they are assessed and have to score to earn certain rewards, is a signal that the emphasis in guiding and directing performance and behavior of subordinates within the package of MCSs at Nedap is not to a high extent on the Rewards and Compensation Control component, but only to a medium extent.

4.4.2.5 Cultural Controls

As already mentioned before in the discussion of some of the other possible components in the package of MCSs, the lack of them is probably compensated by the existing culture, or Cultural Controls. Although the respondent does not consider it as a control, in some cases he explicitly mentions that, in his opinion, it is unnecessary to implement certain elements of MCS components, because of the existing culture.

The addressed examples during the interview though show implementations of all three elements – clans, values, symbols – of the Cultural Controls component. These are so widely integrated in the company that there is some overlap of the implementations over the distinguished elements, which makes it difficult to classify all implementations to the exact element. For example, the respondent mentions the 'natural solidarity' ("natuurlijke gemeenschapszin"), which is, according to him, inherent to the region of residence of Nedap. This implies and has to do with values, but part of it is also related

to clans, because of the natural collective thinking of the people, who consider the interests of the company obviously above the interests of the group or individual.

> *"... een natuurlijke gemeenschapszin. Bij heel veel andere organisaties is het eerst het individu, dan de groep, dan het bedrijf. Bij ons is het omgedraaid. Het bedrijf is het belangrijkst, dat hoort erbij, dan de groep en dan de persoon."*

Also the distribution of values by the CEO during his wandering around through the company and sharing his past experiences has to do with both values and clans, since in combination with the communication of their clear mission he tries to create a kind of shared belief under employees of the company to let them feel like a member of a clan. The CEO does this to convince employees to take as much as possible sensible decisions in a short time, which is such an important concept within Nedap that it can almost be considered as a value, but at least as being part of their mission.

Besides the changing of values under the personnel by the mentioned socialization process, the recruitment of new personnel is considered of such a high importance for the values element of the company that the CEO does not want to entrust it to a HR-department, but does the selection himself. The awareness of the abovementioned influence of the regional culture by the CEO plays an important role in this selection, because this is very much taken into account to let new personnel fit with the existing culture.

> *"Ja, of, daar zijn wij achter gekomen, ... d'r zijn bepaalde landen, bepaalde regio's die ook goed gaan. De Rotterdammers, dat gaat ook goed. Amsterdammers niet. Hahaha. Dat is echt heel ... Dat werkt niet. En dan heb je mensen, bijvoorbeeld in het westland, wat meer een boeren omgeving is, dat gaat goed, maar mensen in Den Haag weer niet. Dat is heel merkwaardig. Ja, daar zijn wij achter gekomen. Dat heeft een hele andere manier van werken."*

The explicating of values to let employees behave according with them, even if they do not adhere to them personally, is something that also happens at Nedap. The respondent emphasizes more than once that norms and values associated with the culture of Nedap are clear, although not in written form. When dissidents do not change or improve after a warning, they simply have to abandon the field ("als je d'r uit gaat, ga je d'r uit"), instead of good employees suffer from behavior of bad employees by installment of rules. In this way employees are either explicitly or implicitly aware of the requirement to behave according to the norms and values of the company.

> *"Wat wij zeggen, "als je d'r uit gaat, ga je d'r uit". D'r zijn altijd, wij doen dat nooit zomaar, want je kunt dat niet ad hoc doen. Euh, ik mag jou niet meer, jij gaat d'r uit. Want dat is een hele organisatie ... Het moet heel duidelijk zijn waarom deze persoon d'r uit gaat. Dat moet je uitleggen en die man die zegt "Ja, ...". Dan kun je hem beter een paar maanden extra meegeven en meteen afscheid nemen, dan proberen daar allerlei dossiervorming aan te doen, wat op zich ook niks uit maakt, en waar het maanden duurt in een hele moeilijke situatie. En dan bespaar ik ook nog de hele human resource afdeling."*

> *"Dus het is veel beter om het op die manier te doen. En iedereen weet dat. Dus als jij op de schouder geklopt wordt, dat gaat altijd goed in overleg, dit is wat ... En bij ondernemerschap is het heel simpel, wij kunnen gewoon, of je doet iedere keer domme dingen, nou, dan ligt het voor de hand, of je doet niks. Dat, dat zijn de twee varianten. Allebei kun je aantonen. Vergt wel dat je verdomd goed weet wat iedereen doet in de organisatie."*

With regard to symbols it is notable that there is an open structure within the building, with office landscapes and lots of 'glass walls', to support the culture of collaboration. Besides that, and above all, the CEO himself can be considered as a symbol within and for the company. He is a strong leader and behaves as a role model, which he tries to emanate and transfer daily to the employees. He even indicates that although the company could exist without him, it probably would look and perform quite different. His way of managing is therefore also an important part of the culture.

From the above it is clear that the Cultural Controls is a very important component within the package of MCSs existing at Nedap. One is aware of the presence of the culture and considers it as valuable and important to preserve. Therefore the CEO tries to propagate it as much as possible within the company in the ways as listed above. So, there is certainly a large emphasis on the Cultural Controls component within the package of MCSs at Nedap.

4.4.2.6 Summarized

After discussing all MCS components separately, the individual results are summarized in Table 10 to give an overview of the total package of MCSs at Nedap. The comparison of this package at Nedap with the packages of the other companies in the sample, to answer the central research question of this thesis, follows in Chapter 5.

MCS package component	Importance of component
Administrative Controls	LOW
Planning Controls	LOW
Cybernetic Controls	MEDIUM
Rewards and Compensation Controls	MEDIUM
Cultural Controls	HIGH

Table 10: Importance of components within package of MCSs at Nedap

4.4.3 Tight or loose control at Nedap?

To judge about the tightness of the implemented controls at Nedap, it is necessary to check if the individual implementations meet the criteria for tight controls discussed in Section 2.5. As we have seen in the previous section, many of the control components are avoided consciously at Nedap. Nevertheless, there is a section per control component in which this check is discussed, and results are summarized in Table 11.

4.4.3.1 Administrative Controls tightness

As explained in the previous section, the Administrative Controls is one of the components that have, if at all, only some summarily implementations, but in general is consciously avoided with arguments. Although the way in which the avoided governance structure implementations are remedied within Nedap seems to meet the criteria for tight pre-action controls (frequent, detailed and performed by informed person(s)), these can actually not be considered as true governance structure implementations. On the one hand the discussions take place as frequent and detailed as necessary and with the informed person(s) that are needed to discuss about the on hand decisions, but on the other hand these do not seem to satisfy the objectives of the governance structure controls, like 'meet to co-ordinate both vertically and horizontally' and 'to let people know from each other what is going on to align their activities'. Therefore, the way in which it is implemented at Nedap cannot be considered as a tight control within the Administrative Controls, but only a loose implementation, if one can consider it as a control at all.

The organizational structure and policies and procedures are elements of Administrative Controls that are even more avoided with the arguments discussed in the previous section. With respect to policies and procedures it can be said additionally that on the one hand one considers them as unnecessary, because of the (regional) culture existing within the company, and on the other hand one accepts that not everyone works perfectly in harness, because they belief that in case they would apply policies and procedures, it would only be worse. In total, the Administrative Controls are applied very rare at Nedap,

if at all, and guiding and directing of subordinates is, with respect to this component, to some extent left over to self-regulation and also partially compensated through the more extensive use of Cultural Controls. Administrative Controls are therefore implemented only loose.

4.4.3.2 Planning Controls tightness

As became clear from the discussion in the previous section, the component Planning Controls is avoided as much as possible at Nedap. Where many possible implementations are by the respondent mentioned to be deliberately avoided, there is some kind of superficial long-term planning on headlines for about one year ahead. When assessing this superficial long-term planning with the criteria for tight results controls it is already evident from only some criteria that this implementation cannot be regarded as tight, but only loose. In the definition part of the criteria it is clear that the desired results or actions are not specified specific, since it is only a superficial long-term planning on headlines. With respect to measurement it seems that there is no structured measurement at all to determine the achievement of these plans, or certainly at least not precise. Even more than the measurement, there is no formal link between (achievement of) the superficial long-term plan and the existing rewards system. The noncompliance with these criteria for tight results controls leads to the conclusion that the implementation of Planning Controls is loose at Nedap. Also when taking into account the underlying idea of the tightness of control – the extent to which the controls increase the likelihood that objectives are achieved – it can be concluded that the present implementation is loose, because it is not even intended to increase the likelihood of achieving objectives in the way. Just as with other components, also for the Planning Controls the Cultural Controls serve partially as a substitute. For this component the widely communicated mission statement is an important guidance for subordinates to take over the functions of Planning Controls.

4.4.3.3 Cybernetic Controls tightness

Referring to the discussion in the previous section, the respondent declared himself that they use budgets only superficial and do not even want to apply them tight, because of their belief that this would work counterproductive. When analyzing it, just as with the Planning Controls at Nedap, the way in which budgets are implemented is very contradictory with some of the criteria for tight results controls, which makes a loose implementation of it. Since budgets are determined only informal and superficial, these do not meet the criteria 'specific' and 'effectively communicated and internalized' for definition of desired results or actions. Measurement of results with respect to determined budgets is actually not taking place, except that subordinates must keep their own profit and loss account, but not with the intention to draw conclusions about progress of budgets. Additionally, the existing rewards system at Nedap is also not linked with the superficially implemented budgets, so there are no significant, direct or definite rewards to the person(s) involved.

With respect to the implementation belonging to the element financial measurement systems of the Cybernetic Controls, the KPI AVPE, there is a definition of the performance measure itself, but there are no goals set regarding desired results or actions for individual subordinates or groups. It is just a result of activities undertaken by subordinates. The lack of a definition of a desired result alone makes that it cannot be considered as a tight implementation of a results control, but points to a loose implementation, as it is also intended according to the respondent. Considering the criteria for measurement of results (1) congruent, (2) precise, (3) objective, (4) timely, and (5) understandable, at least an extra remark can be placed on precision and objectivity, because subordinates keep their on figures. Although AVPE is the only implementation within the Cybernetic Controls that has some link with the rewards system, this link is certainly not direct and definite, because the CEO argues that he

takes this performance measure into account in his yearly evaluation of subordinates, but only as an indication for his subjective evaluation.

Whereas we have seen above that the scarce implementations, which are applied at Nedap, are applied loose, the component Cybernetic Controls within the total package of MCSs must be considered as a loose control component.

4.4.3.4 Rewards and Compensation Controls tightness
In the previous section it was discussed that there is some kind of rewards system with variable pay and profit sharing at Nedap, but not a formal system in the sense that rewards, and corresponding criteria for receiving these rewards, are predefined. The evaluation of subordinates for the purpose of rewards takes place in a subjective way by the CEO and the outcome of the evaluation depends on whether the subordinate made sensible decisions, which is of course an arbitrary criterion. When considering this in the light of the criteria that must be met for tight results controls, the lack of clarity about desired results or actions, the lack of (objective) measurement of results or tracking of actions, and the lack of a direct and definite link between results or actions and rewards and/or punishments point to a loose implementation of the Rewards and Compensations component within the total package of MCSs at Nedap.

4.4.3.5 Cultural Controls tightness
Unlike the other four (hard) components, the soft component Cultural Controls is applied to a high extent and is even meant to partially compensate the lack of others. Although it was explained that tight control is difficult to achieve with personnel/cultural controls alone, Nedap seems to be an exception to this assumption. And even though some of the implementations function as a control without one is fully aware of it, the Cultural Controls are present in many different ways at Nedap. The tightness of these implementations must be checked against the criteria for tight personnel/cultural controls, i.e. the certainty and stability of knowledge about linking personnel/cultural characteristics with desired actions.

Where the Cultural Controls component comprises of three elements (clans, values, symbols), all three are apparent at Nedap. About the tightness of the clans implementations it can be said that especially the discussed 'natural solidarity', which is, according to the respondent, inherent to the region of residence of Nedap, is something that can be considered to be relatively certain and stable by nature, because it would take very long to change a culture of a whole region. The shared belief, which the CEO tries to create with the constant communication and internalization of the company's mission, might be less certain and stable and more dependent on the person of the CEO himself. The purpose of the CEO, however, is to create the same enthusiasm or engagement under the subordinates, to accomplish less dependency. The fact that the respondent repeats those one-liners many times during the interview is an indication that this happens very often. He even states that the mission encompasses the things for which they wake up every morning. This transfer of enthusiasm and engagement will, in turn, tighten the effect of the mission control implementation on the clans element.

The values are probably the most important at Nedap of the three elements within the Cultural Controls component. Again, the CEO plays a central role in determination, propagation and preservation of the values within the company. On the one hand he is central in the socialization process of transferring and strengthening values under subordinates, by continuously walking around through the company, and does a lot of talking with his personnel to persuade them of values and the guiding mission statement. On the other hand he is central in the recruitment process to secure the fit of new personnel with the

existing organization culture. Partially there is the 'natural solidarity', but another important aspect which the respondent indicates is that he is aware of when a recruit will fit with the company or not; one has discovered, for example, that people from certain regions will traditionally fit better/worse with the company than people from other regions.

For classifying these controls as tight, it is necessary that these contribute in a certain and stable way to the achievement of desired actions. Because of the central role of the CEO in implementation of these controls, and he is also responsible for determining what desired actions are, it can be assumed that these match with each other, so implementation of the values element can be considered tight. Apart from the fact that the CEO takes care for the tightness of values via personnel as well as cultural controls personally, and in this way secures the certainty and stability of the linking of personnel/cultural characteristics with desired actions, the way in which controls are applied can also be considered as a kind of action accountability control. Checking these implementations on the criteria for tight action accountability controls, shows that these meet most of the criteria very well. The adhered values fit very well with the true organizational objectives and are communicated, although not in written form, and internalized very well under the personnel by the CEO. The extent to which values are specific is not the highest, but seems to fit very well with the creative and innovative intentions of the company. Regarding the tracking of resulting actions (behavior), this is performed by the CEO during his personal contact with his subordinates. Because of this personal observation by the CEO, it can be assumed that he tracks the actions he expects to track, so it can be considered to be congruent and precise. On the other hand, the drawback is that there is room for subjectivity in this way, instead of a 100% objective action tracking. The extent to which this leads to problems regarding the tightness of the control, however, is not sure. Since tracking takes place on an almost continuous basis, the 'timely' criterion is met. Understandability should not be a problem either, because it is assumed that everyone in the organization is aware of the adhered values and tracking just encompasses checking whether subordinates behave in accordance with them. With respect to rewards and/or punishments corresponding to (non)compliance with desired behavior, the respondent has a clear view about it: when subordinates keep taking senseless decisions and/or do not behave in accordance with the adhered values after they get a warning, dismissal would be the consequence. One of the reasons for this is the preservation of the culture. The extent to which rewards and/or punishments are direct and definite is pretty high, because subordinates will receive a warning on noncompliance and the respondent gives the impression that there is not much compassion in case of continuing noncompliance. In sum, the compliance to the necessary criteria for tight action accountability controls is an extra indication that the values element within the Cultural Controls component is applied tight.

Within the symbols element the CEO as a leader playing a role model is the most important implementation, which appears to be a tight control, because he contributes to a large part in ensuring that subordinates demonstrate the desired behavior. About the transparently designed building and office landscapes little can be said about the tightness, or the extent to which they contribute to the occurrence of desired behavior. The only thing that can be said is that they are expected to serve as supportive to the desired attitude of collaboration.

Together, it seems that the implementation of the Cultural Controls is very tight, because the implemented controls seem to fit very well with the existing control problems within Nedap. As described above, the degree of certainty and stability of knowledge linking personnel/cultural characteristics with desired actions is high. However the implementations can be considered tight for the moment, an important remark is that the role of the CEO in the implementations is very large. This is in accordance with the statement in Section 2.5.3 that personnel/cultural controls can break down

quickly, can have implications for the future, but for the moment the implementation of the Cultural Controls must be considered as tight.

4.4.3.6 Summarized
After discussing the tightness of all MCS components separately, the individual results are summarized in Table 11 to give an overview of the total package of MCSs at Nedap.

MCS package component	Tightness of implemented component
Administrative Controls	LOW
Planning Controls	LOW
Cybernetic Controls	LOW
Rewards and Compensation Controls	LOW
Cultural Controls	HIGH

Table 11: Tightness of implemented MCS components at Nedap

With respect to the tightness of the total package it is important to note that it is not simply a matter of averaging the 'scores' on the individual components to get the tightness of the package. For a package it is already possible to be tight, for example, if only one component is applied tight to a high extent. However, a tight implementation of one or more components does not necessarily mean a tight package, because a loose implementation of another component at the same time can undermine this tightness. It is also still possible to have a tight package if none of the components is applied tight to a high extent, but the components are fully complement to each other and form a tight package together. The tightness of the package of MCSs depends on the extent to which it is able to increase the likelihood that organizational objectives are achieved. The comparison of this package at Nedap with the packages of the other companies in the sample, to answer the central research question of this thesis, follows in Chapter 5.

4.4.4 Conclusion about Management Control Systems package at Nedap

We have seen that at Nedap the more soft controls are dominant within the package of MCSs. Especially the culture plays an important role within the company. One wants to take sensible decisions and achieve this through hiring the right personnel that is able to take these sensible decisions, communicating a clear mission, and sharing experiences to guard in this way the norms and values of the company. These are all examples of 'Cultural Controls', which belong to the soft controls. Another aspect of the culture is the region in which the company is located. The people in this region have, according to the CEO, a kind of 'natural solidarity' ("natuurlijke gemeenschapszin"), which makes that a lot of rules and processes, such as stimulating to work together, are unnecessary. This is at the same time an explanation why the soft control culture is considered important, and why the more hard controls, like rules and procedures, are largely lacking. We have also seen that other more hard controls, like planning and evaluation, are of much less importance at Nedap. As explained, many aspects of these are even consciously avoided, like a formal evaluation and reward system, budgets and targets. The focus within the configuration of the total package of MCSs is thus on the soft controls, and the hard controls are implemented only very few and largely avoided consciously.

If we look at the dimension tightness of control it must be mentioned that the respondent himself stated that they apply very loose control and it is also his intention to apply loose control.

> *"Ja, haha, zo loose … Nou, ja, het moet verstandig zijn."*

The above analysis of the tightness of the separate possible MCS components in the total package confirms this statement of the respondent. All of the few implementations of the hard control components are applied only loose. On the other hand, the implementation of the soft controls, which the respondent not really considers as being a control, is applied tight. This tight implementation of the soft controls is at the same time responsible for the tightness of the total package of MCSs at Nedap, which is still high for the moment, because the respondent gives reasoning that it leads to the desired behavior of subordinates and is successful in supporting the achievement of the company its objectives. However, this tightness of the total package is under pressure, because in case of a failure of these soft controls there is no 'backbone' of other tight controls to lean on.

5. Conclusions and discussion

In this chapter the link will be made between the research question presented in Chapter 1, the two hypotheses presented in Chapter 2, and the analyses of the MCS packages of the four companies. Subsequently, the implications for the field of MCSs as a package are discussed. The final sections of this chapter are dedicated to limitations of this research and suggestions for further research it has yielded.

5.1 Conclusions

5.1.1 Configurations of the MCS packages

When comparing the packages of MCSs of the four companies in this research by simply looking at Table 12, it can be noticed that the two companies with an American parent, Sensata Technologies and Eaton, have 3 of the 4 hard control components with a HIGH importance within the package, the 4th hard control component is still of MEDIUM importance for these companies. Based on this, it can fairly be concluded that for the Dutch subsidiaries with an American parent at least the hard controls play a very important role in guiding and directing behavior of subordinates. For the originally Dutch companies, Mediq and Nedap, there is a less unambiguous picture regarding the importance of the hard controls within the configuration, when just looking at the classifications in Table 12. Where at Mediq, equal to the configurations of the Dutch companies with an American parent, 3 of the 4 hard control components have a HIGH importance and the 4th component is of MEDIUM importance, Nedap shows a very different picture. In this company only 2 hard control components are classified as MEDIUM important, and the other 2 hard control components are even classified as of LOW importance. This ambiguous picture of the hard controls at the originally Dutch companies makes that it is, based on the classifications in Table 12, difficult to draw strong conclusions about the importance of hard controls in Dutch companies. The conclusion based on the classifications in Table 12 must be that in the Dutch subsidiaries with an American parent, the hard controls are very important and in the originally Dutch companies the hard controls show an ambiguous picture, so a difference between the two groups of companies cannot be concluded with certainty, but there is reason to suspect that there are differences.

MCS package component	Importance of component			
	Sensata	Eaton	Mediq	Nedap
Administrative Controls	MEDIUM	HIGH	MEDIUM	LOW
Planning Controls	HIGH	HIGH	HIGH	LOW
Cybernetic Controls	HIGH	HIGH	HIGH	MEDIUM
Rewards and Compensation Controls	HIGH	MEDIUM	HIGH	MEDIUM
Cultural Controls	MEDIUM	HIGH	HIGH	HIGH

Table 12: Comparison over companies of configurations of packages of MCSs

The classifications in Table 12 regarding the soft controls show the reverse picture. At both originally Dutch companies the soft controls are considered of HIGH importance in guiding and directing behavior of subordinates. From the Dutch subsidiaries with an American parent, however, only one considers the soft controls of HIGH importance within the configuration and the other as MEDIUM important. So, for the soft controls a similar conclusion as for the hard controls must be drawn, based on the classifications in Table 12. For the originally Dutch companies the soft controls are considered very important and, in this case, the Dutch subsidiaries with an American parent show an ambiguous picture, so a difference between the two groups of companies cannot be concluded with certainty, but there is reason to suspect that there are differences.

Before answering the first hypothesis H1,

H1: Dutch subsidiaries with a US parent use a configuration of MCSs which is more oriented on hard controls and Dutch companies with a Dutch parent use a configuration of MCSs which is more oriented on soft controls.

nuances presented in the analyses of the companies are important additions to the classifications in Table 12. Especially with respect to concluding on the importance of the hard controls within the configuration of MCSs at the originally Dutch company Mediq. In the analysis of Mediq it was namely already mentioned that some of the hard control components are present to a high extent, and the respondent considers them as necessary, though not that important in guiding and directing behavior of subordinates. When taking this into account, this would bring the package of Mediq more in accordance with the package of the other originally Dutch company in the sample, Nedap, and increases the difference of it with the packages of the two Dutch subsidiaries with an American parent in the sample. So, the statement made above that there is reason to suspect that there are differences in the importance of hard controls within the configuration of the total package of MCSs between the originally Dutch companies and the Dutch subsidiaries with an American parent is justified even more.

To give an answer to hypothesis H1, it is clear from the above that the Dutch subsidiaries with an American parent indeed have the focus on the hard controls within the configuration of their package of MCSs. With respect to the originally Dutch companies, there is no unambiguous conclusion possible based on the data, but presumably the focus is not on the hard controls in these companies. Regarding the soft controls it can be said that within the originally Dutch companies the focus is indeed on the soft controls, but for the Dutch subsidiaries with an American parent there is no unambiguous conclusion possible based on the data of this research. So, although based on this research it cannot be concluded that the Dutch subsidiaries with an American parent pay little attention to the soft controls, or that the originally Dutch companies pay little attention to the hard controls, this research confirms that the Dutch subsidiaries with an American parent implemented a configuration in which the hard controls are more important and the originally Dutch companies implemented a configuration in which the soft controls are more important.

As a further discussion on this conclusion it can be said that the fundament of this research and the answer above is the contingency theory, with in this case 'national culture' as contingency. The results, however, show that contingency theory, or at least 'national culture' solely, cannot fully explain the differences in the configurations of MCS packages in the companies subject of this research, because the MCS packages within the two distinguished groups do not correspond. Therefore there must be looked further to other possible explanations. These might be found in the studies of Cardinal et al. (2004, 2010), based on configuration theory. Possible explanations that can be drawn from these studies are (1) different current phases of the companies in their MCS package development, and (2) different MCS package starting points of the companies and the described pentimento-effect. When still assuming that there is a (partial) explanatory effect for the contingency 'national culture', then it can be that, for example, the two Dutch companies with an American parent will finally end up with a similar MCS package, but that these are both in a different phase of the dynamic development of their MCS packages, as Cardinal et al. (2004, 2010) describe. When the contingency 'national culture' plays no role, then all four companies are in different phases, where Sensata Technologies, Eaton and Mediq are most closely together and Nedap is far away from these. There is also evidence for the different starting points and the pentimento-effect in the MCS packages. Cardinal et al. (2004) refer to Hellman (1973) for the pentimento-effect as follows:

"Old paint as it ages, sometimes becomes transparent. When that happens it is possible in some pictures, to see the original lines: a tree will show through a women's dress, a child makes way for a dog, a large boat is no longer on an open sea. That is called pentimento because the painter "repented," changed his mind. Perhaps it would be well to say that the old conception, replaced by a later choice, is a way of seeing and then seeing again (Hellman 1973)."

This effect also seems to appear in the MCS packages of the companies in this research. As noted in the analysis, the respondent at Eaton even mentioned this phenomenon explicitly:

"Maar vergeet niet dat wij natuurlijk wel een cultuur hebben die 100 jaar, of iets meer dan 100 jaar oud is. Niet een Eaton cultuur, maar een bedrijfscultuur. En die gooi je niet zomaar overboord."

"Want, als je bijvoorbeeld zou zien wat het verloop is van mensen, die is heel erg laag. Dus die cultuur, die zingt hier nog steeds rond. En maar goed ook. Ik bedoel, wij zijn wel een Amerikaans, onderdeel van een Amerikaans concern, maar dit is niet een Amerikaanse mentaliteit wat hier heerst, hoor. Bedrijfsmentaliteit wel, maar onderling… "

"Maakt het misschien wel een beetje schizofreen af en toe, maar je bent niet zomaar je cultuur kwijt. Je bedrijfscultuur kwijt."

Thus, although it became clear that the Dutch companies with an American parent changed their configurations of MCS components after the acquisition, and these seemed both to develop in the same direction, these have different starting points that are still present, eventually in latent form, and shine through the current states of the MCS packages. So, where the contingency theory on the single contingency 'national culture' seems to fail in explaining the differences in MCS packages entirely, the results of this research seem to produce proof for the configuration theory.

5.1.2 Tightness of the configurations

Regarding the tightness of the configurations of the packages of MCSs, there are two ways to draw a conclusion on this. First, as is hypothesized in H2, a reflection is given based on a comparison of the tightness of the individual MCS components within the packages of the four companies. Thereafter follows also a reflection with respect to the tightness of the packages as a whole.

MCS package component	Tightness of implemented component			
	Sensata	Eaton	Mediq	Nedap
Administrative Controls	HIGH	HIGH	MEDIUM	LOW
Planning Controls	HIGH	HIGH	HIGH	LOW
Cybernetic Controls	HIGH	HIGH	HIGH	LOW
Rewards and Compensation Controls	HIGH	HIGH	HIGH	LOW
Cultural Controls	MEDIUM	HIGH	HIGH	HIGH

Table 13: Comparison over companies of tightness of applied MCS components

The first reflection can be done by simply looking at the classifications on the MCS components for the companies as summarized in Table 13. From these classifications it becomes clear that the two Dutch subsidiaries with an American parent generally apply the MCS components tight, where for both companies all MCS components are applied tight to a HIGH extent, except for the Cultural Controls at Sensata Technologies, those are applied MEDIUM tight. From the originally Dutch companies, however, no clear and unambiguous picture arises. Where at Mediq a picture of generally tight applied MCS components arises, only one to a MEDIUM extent and the others to a HIGH extent, the MCS components at Nedap show a totally different picture. At Nedap only the soft control component 'Cultural Controls' is applied tight to a HIGH extent, and the extent of tightness of all four hard control components is LOW.

For the answer on hypothesis H2,

> *H2: Dutch subsidiaries with a US parent use a configuration of MCSs which applies tighter controls than Dutch companies with a Dutch parent do.*

the above implies that it is too complicated to give a simple uniform answer on this. The data from this research, namely, do not show a picture that 100% confirms the hypothesis, but at the same time do not exclude the statement made in the hypothesis. On the one hand the data show that the Dutch subsidiaries with an American parent apply a configuration with tight MCS components. On the other hand the originally Dutch companies show an ambiguous picture. So, the conclusion must be that, based on this research, Dutch subsidiaries with an American parent apply <u>tight</u> controls, but whether these apply <u>tighter</u> controls than Dutch companies with a Dutch parent do cannot be concluded and needs further research.

The other possible way of reflecting is with respect to the tightness of the packages of MCSs as a whole. The tightness of the total package of MCSs per company is discussed in the corresponding concluding sections at the end of the separate analyses in Chapter 4. Although it appeared that all configurations differ and the extent of tightness of the individual MCS components sometimes is quite different, especially when taking Nedap into account, it is remarkable that all configurations of MCSs seem to function very well for the company in question and therewith can be considered as a tight package of MCSs, because it supports top management sufficiently in achieving the objectives of the company by guiding and directing behavior of their subordinates.

The phenomenon that (many) MCS components within the package are not applied tight, but that the package as a whole still seems to be tight, deserves additional consideration. This strong deviation occurs especially in the case of Nedap and might be explained by the fact that control is considered as unimportant, because the CEO at Nedap believes that it is simply impossible to be 'in control'. Therefore they employ other ways to guide and direct behavior of subordinates to achieve company goals: trust. The respondent mentions explicitly that they empower subordinates on the basis of trust, and when this trust is broken, the subordinate has a problem. This use of trust seems to replace MCS components and supports the package as a whole to become tight. To a lesser extent this also applies to Mediq.

In addition, particularly for the original Dutch companies, some extra remarks regarding the stability of the tightness were made, which can be seen as reflected in the MEDIUM and LOW classifications for some MCS components in Table 13. Although it currently seems to have no effect on the tightness of the MCS package, at Mediq there is the informal circuit of information sharing that possibly can have an undermining effect on the tightness of the package. At Nedap the stability seems to be even more at risk, since the tightness of the package of MCSs depends largely on only one component, and there is no fallback of other tight MCS components. At the Dutch subsidiaries with an American parent this threat seems to be less present, or at least covered by other components. So, where there seems to be no difference in the tightness of the MCS packages between the two groups of companies subject of this research, the stability of the tightness seems to be lower within the originally Dutch companies.

5.1.3 Answer to the research question

Overall, the aim of this research was to investigate (differences in) MCS packages of Dutch subsidiaries with an American parent and originally Dutch companies to give answer to the central research question:

"What is the impact of the acquisition of a Dutch company by an American
parent with respect to the package of Management Control Systems?"

The answer to this question must be that, based on this research, there is at least evidence that there are differences between those two groups of companies. The impact with respect to the MCS components that are included in the configurations of the MCS packages seems to point in the direction of the statement made in hypothesis H1; Dutch companies with an American parent seem to apply a configuration that is more oriented on hard controls and originally Dutch companies seem to apply a configuration that is more oriented on soft controls. With respect to the tightness of the MCS components in the configurations the data in this research do not disprove the statement made in hypothesis H2; Dutch companies with an American parent apply tighter controls than originally Dutch companies do. There are even reasons to suspect that there is indeed an impact in the direction of the statement in hypothesis H2, so also with regard to the tightness of the MCS components there possibly would be a clear difference in the way American and Dutch companies apply MCSs.

To give extra weight to the presumption that there is a difference between the two groups, it is valuable to mention that 3 out of the 4 respondents explicitly mention a difference from their own experience in different companies, or from their knowledge of the situation before and after the acquisition by the American parent. The respondent at Mediq mentions from his own experience in an American company the stronger focus on the hard controls within the configuration of MCSs of the total package:

> *"… kijk, ik heb hiervoor ook bij een Amerikaans bedrijf gewerkt, en daar werd veel harder nog op prestatie gestuurd dan, euh, ja, bij Mediq, wat natuurlijk ook wel een redelijke afrekencultuur heeft, maar niet, euh, niet keihard."*

> *"… eigenlijk wat ik net ook al aangaf, d'r wordt wel steeds meer op gelet, maar wij hebben nog niet echt een Amerikaanse cultuur, dat mensen echt keihard worden aangesproken als ze underperformen. Het is wel iets wat wel steeds …"*

> *"Maar het is niet per definitie slecht, hè. Ik bedoel, ik heb hiervoor bij [Amerikaans bedrijf, ed.] gewerkt, en daar wordt daar wel wat harder ingezet. Maar het is ook eerlijker naar mensen toe. En wil je ze echt een kans geven om zich goed te ontwikkelen, dan kun je beter af en toe hard zijn, dan, euh, … en daardoor mensen weer motiveren om nog beter hun best te doen, maar, ja, dat is voor degene die het niet bijhaalt, is het natuurlijk wel vervelend. Dus dat is meer het sociale aspect daarvan. En, euh, nou ja, het is wel een belangrijk aspect om, ik bedoel, het kan ook de sfeer verzieken, hè, als je dat op een verkeerde methode doet."*

Also the respondent at Sensata Technologies suggests from his own experience in the current and previous American companies he worked for that there exist differences between the applied MCSs at American companies and European companies. In particular, he suggests that American companies apply the hard controls to a higher extent, more extensive and more in a quantitative way than European companies do. Also he suggests that the soft controls are less important in American companies than in European companies. So, he especially made statements about a difference in the focus within the configuration of MCSs between American and European companies.

> *"We formuleren wel een aantal zaken, maar we zitten veel meer duidelijk op het kwantitatieve stuk. Uiteindelijk is dat waar heel veel oordeelsvorming ook op zit. Veel meer numbers-driven. Ja, absoluut."*

> *"Ja, zowel budgetten als prestatie indicatoren, waar de budgetten, dan zit je weer met een Amerikaans bedrijf, daar zou ik wel een 7 [out of 7, ed.] willen geven."*

> *"Dit is een, en daar ben ik ook heel eerlijk in, dit systeem geeft ook best wel wat discussie hier. Dit is een systeem, dat komt oorspronkelijk van General Electric vandaan, die hebben ook een vergelijkbaar performancesysteem ooit geïntroduceerd, en dat is overgenomen door het hoofdkantoor in Amerika, maar ook hier geïntroduceerd. We hebben*

hier heel veel gesprekken en discussie hier ook over, maar de uiteindelijke conclusie is dat we dat hier ook onderschrijven. Maar tegelijkertijd is er ook wel wat, euhm, vragen of het past, met name bij een Europees bedrijf, en dat soort zaken meer. Dat er wel een discussie is, of dat nou puur bij de cultuur van een Europees bedrijf past. Je moet natuurlijk wel, dit heeft natuurlijk wel een Amerikaanse invloed. Maar als management staan we hier volledig achter. Dus daarom zeer belangrijk. Ja.”

“Euhm, personeelsrelatie. Ja, als je het zo zegt, dan is die natuurlijk wel heel belangrijk, aan de andere kant, het heeft natuurlijk ook wel weer, en dan komt er ook wel weer wat Amerikaanse cultuur naar binnen, als iemand niet meer voldoet, nemen we ook heel makkelijk afscheid. Dus dat is de andere kant. Dus, ja, het is maar hoe je die mee laat wegen. De goeie mensen willen we absoluut aan ons binden, daar doen we ons best voor. Dus in die zin is het belangrijk.”

The respondent of Eaton, however, also made statements about differences in tightness between American and Dutch/European companies. His statements were made based on his experience within Eaton before and after the acquisition of his establishment, and he suggests that the controls are much more tightly applied after the acquisition than before. Contrary with the statements made by the other two respondents above, he also stated about the configuration of MCSs that within his American company Eaton, the soft controls are still considered as very important.

“Ja. Absoluut. Wij meten, nou ja, 100.000 keer meer dan we toen deden. Dit bedrijf is puur gericht op, euh, prestatie-indicatoren. Ach, puur, puur klinkt ook zo zwart-wit natuurlijk. Maar men meet alles. Meten is weten, en dat geldt hier heel erg.”

“... de Nederlandse cultuur heeft wel een beetje, van, nou ja, die indicator, die staat op 90, maar als die 89 is, is het prima, 88, nou ja, dat gaat nog wel, 87, potverdikke, daar moeten we wel een keer naar kijken, 85, holy shit, hè, we missen business! Hier gaat dat niet. Als je binnen Eaton niet op 90 zit, en je zit op 89, wat is d’r aan de hand? Wat gaan we daar aan doen? Dat is een beetje de cultuur.”

“Ik bedoel, wij zijn wel een onderdeel van een Amerikaans concern, maar dit is niet een Amerikaanse mentaliteit wat hier heerst, hoor. Bedrijfsmentaliteit wel, maar onderling, ... Maakt het misschien wel een beetje schizofreen af en toe, maar je bent niet zomaar je cultuur kwijt. Je bedrijfscultuur kwijt.”

“Maar vergeet niet dat, Eaton, Amerikaans bedrijf, maar de ethische waarden hééél hoog in het vaandel heeft staan. Want ze willen absoluut niet in het nieuws met een of andere ethische kwestie.”

“De financiële resultaten, ja, vroeger was dat natuurlijk ook belangrijk, maar voor een veel kleiner groepje. Select gezelschap waar dat gedreven werd. En de rest die moest gewoon sleutelen. Even heel plat gezegd. En nu is het zo, iedere werknemer weet hier gewoon hoe het bedrijf ervoor staat. En natuurlijk niet tot in detail, van wat dat precies betekend. Die weet donders goed dat manufacturing profit, dat dat is waarin hun rol ligt. En niet in support expense. Die heb je toch. En ze weten donders goed dat als ze een koperstrip weggooien, wat dat betekend. Ik zeg dat altijd, welke wieltjes wil je nou aan draaien, om het resultaat positief te beïnvloeden. En dat weten ze donders goed.”

These experiences of 75% of the respondents are very meaningful and should encourage researchers to perform further research on (the causes of) these differences.

5.2 Theoretical Contributions

This explorative research offers several theoretical contributions. As mentioned in the introduction, very little research has been done on the subject of MCSs as a package in the past, so the data of this research and the corresponding conclusions represent a contribution into this field. Although all respondents at least seem to believe that their package of MCSSs fits with their organization and also appears to be effective, clear differences were observed between the two groups of companies that were subject in this research. There are indications that Dutch companies with an American parent and originally Dutch companies apply a different configuration of MCSs. There are also indications that there is a difference between Dutch companies with an American parent and originally Dutch companies in

the extent of tightness of the applied MCSs. Besides the observed differences, there are also indications that an acquisition of a Dutch company by an American parent affects both the configuration and the tightness of the MCSs that are applied in the subsidiary. All in all, the contingency 'national culture' seems to have a clear impact, especially on the package of MCSs within a company, and subsidiaries seem to adjust their package of MCSs in the direction of the 'national culture' of the parent from the moment of an acquisition.

Besides that little was known about the MCSs as a package, there was also very little known about the differences with respect to the applied individual MCSs between the countries America and the Netherlands. Although it might be small, in finding these differences this explorative research delivers also a contribution.

5.3 Practical Implications

Given the results of this research, some practical implications can be imagined. A useful practical implication can be that one can realize that there are probably differences in the package of MCSs when it concerns distinct 'national cultures', and what these differences comprise, already before an acquisition. Companies can in this way acquaint oneself of expected upcoming changes in the package of MCSs already before the acquisition. Also in cases that not specifically concern an acquisition, but all other possible business relations including cross national cultures, it can be wise to take advantage of the knowledge of existing differences in the packages of MCSs in both companies. In companies in which the package of MCSs does not prove to be effective, this research can be used as a support in the search, adaptation or application of other or tighter MCSs which better fit with the company, taking into account the 'national culture' of both the parent company and the subsidiary.

5.4 Limitations and suggestions for further research

This research has several limitations. The first and most important limitation is the sample size of only four companies, which is a small sample size and makes it difficult to draw strong conclusions. It made that in the cases of ambiguous data between two companies belonging to the same group it was impossible to judge whether one of the two must be considered as an outlier within that group, or not. However, for this explorative research it provided sufficient information to create evidence and presumptions for use in future research.

There are also limitations with respect to the use of the questionnaire for data collection. So, the second limitation is that the fairly extensive questionnaire is primarily designed for quantitative research. The use of it for qualitative research made that, although it was a good and useful tool, it took very long to fill in with the respondents during an interview, which could have its implications for the accuracy and the attitude of the respondents in giving their answers. However, during the interviews there was no presumption of negative effects due to this.

Third, the extensiveness of the questionnaire has caused that, after the first interview, to save time, the final two of the seven sections of the questionnaire were sent to the respondents to fill in already before the interview. Although these two sections were still treated shortly during the interviews, the fact that there were differences in the way of data collection between the respondents can possibly have its implications.

Fourth, following on the previous limitation, the sequence in which the sections of the questionnaire are treated during the data collection can possibly lead to a bias in the answers of the respondents. A respondent might consider MCS components at the beginning of the questionnaire, or the interview,

more important than MCS components at the end, or vice versa. Actually, at Sensata Technologies the questionnaire was filled in completely sequentially during the interview, for Mediq and Eaton the final two sections of the questionnaire were filled in on beforehand, and at Nedap (see also the next limitation) the sections were treated criss-cross through the questionnaire. It is not clear to what extent this limitation will bias the data.

Fifth, the respondent at Nedap refused to fill in or use the questionnaire. Although we were with two interviewers, it was tape recorded, and we expect that all necessary subjects passed during the interview, this can cause implications for the completeness and comparability of the data with respect to other companies. Reason for this is that questions were asked less extensive, with different words or in another sequence. Also for this limitation it holds that it is not clear what the impact is on the collected data, but there is no suspicion of negative effects.

Finally, the fact that the companies were unwilling to disclose the necessary financial information makes that it is impossible to draw strong conclusions about the effectiveness of the configurations and tightness of the MCS packages. For this reason it was a need to make assumptions based on statements of the respondents, which is less objective. To really judge which configurations and extent of tightness is the best, it is necessary to be able to compare the prevalent situations on objective figures of effectiveness.

5.4.1 Suggestions for further research

This explorative research has brought some interesting conclusions to the surface, but at the same time it has led to interesting opportunities for further research. A first recommendation for further research is to increase the sample size considerably. Now there are presumptions regarding differences in configurations and tightness based on a small sample size, it would be fruitful to test these presumptions in a larger sample size. This will, due to a more anonymous character, possibly also increase the chance of collecting the necessary financial data to compare the effectiveness.

Second, to check the assumptions made about the generalizability of the countries America and the Netherlands within the groups Anglo-American and Western-European countries, it is needed to check the conclusions with international data. This will also provide more information and reliability about the real impact of the contingency 'national culture' with respect to other contingencies.

From the collected data of this research there rose also two interesting suggestions for further research. First there is the contradiction at Mediq within the configuration of the package of MCSs. It was observed that they applied the hard controls to a high extent, but at the same time they do not consider them as very important in guiding and directing behavior of subordinates. Regarding this contradiction, it is interesting to investigate if this situation exists in more companies, why they apply the hard controls to such a high extent, and if this contradiction is specific for the Dutch national culture.

Finally, when looking at the Tables 12 and 13, there seems to be a relationship between the importance of an MCS component within the configuration of the package, and the extent of tightness by which components are applied. More important MCS components within the configuration seem to be applied tighter. Investigating this relationship can be an interesting topic for further research.

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Annexes

Annex 1 – Questionnaire (Dutch)

The following pages contain my Dutch translation of the extensive questionnaire used for the data collection during the interviews.

EFFECTIVE

MANAGEMENT AND CONTROL SYSTEMS

Confidential International Survey Research
2010-2011

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Interviewer

DOEL VAN HET ONDERZOEK

Dit interview draagt bij aan een internationaal onderzoeksproject dat tot doel heeft om te begrijpen welke soorten van management control bestaan, welke soorten effectief zijn en in welke omgevingen. Deze holistische benadering van management control komt terug in deze vragenlijst. De vragenlijst is als volgt opgebouwd:

Sectie A:	Strategische planning
Sectie B:	Korte-termijn planning
Sectie C:	Prestatiemeting en evaluatie
Sectie D:	Lonen en beloningen
Sectie E:	Organisatiestructuur en management processen
Sectie F:	Organisatiecultuur en waarden
Sectie G:	Organisatie en omgeving

KERNBEGRIPPEN

➔ **SBU** verwijst naar de strategische business unit of autonome/standalone onderneming waar u deel van uitmaakt.
➔ **SBU top management** (SBU TMT) verwijst naar de twee bovenste niveaus in de SBU als geheel (bijv. CEO, CFO, COO en ander personeel van het executive management team).
➔ **Ondergeschikten** verwijst naar de directe verslaggevers van het top management team die doorgaans verantwoordelijk zijn voor een business unit, afdeling, profit center, of kostenplaats prestaties.

BEANTWOORDINGSPERSPECTIEF
De vragen moeten worden beantwoord vanuit het perspectief van het top management team van een strategische business unit (SBU) of autonome/standalone onderneming, maar niet vanuit het perspectief van het management van het hoofd-/corporatekantoor van een groep ondernemingen.

De vragen zijn vooral gericht op SBU TMT versus ondergeschikte relaties. We raden aan om u bij het beantwoorden te concentreren op die managers die gaan over de voornaamste functies en een groot aantal ondergeschikten hebben. Managers van ondersteunende en administratieve functies kunnen buiten beschouwing gelaten worden, indien nodig.

BEANTWOORDINGSWIJZE
➔ De meeste vragen worden gesteld in de vorm van schalen (bijv. 1-7). Omcirkel bij deze vragen het nummer dat uw SBU in de praktijk weerspiegelt.
➔ Sommige vragen zijn gesteld in de vorm van alternatieven, gevolgd door vakjes. Vink bij deze vragen het vakje aan naast het juiste alternatief. Als er meer dan één kolom is, vink dan in elke kolom een alternatief aan.

Er zijn geen geode of foute antwoorden. Niet van toepassing (NVT of N/A) is ook altijd een optie.

Gelieve hier te beginnen:

1. Hoeveel jaar heeft u gewerkt voor uw huidige SBU?　　　_____

2. Wat is de titel van uw positie?　　　_____

3. Wat is uw hoogste diploma?　　　_____

4. Wat heeft u gestudeerd?　　　_____

Sectie A. Strategische Planning (Strategic Planning Content and Process)

A1. Geef aan hoeveel jaren de strategische planning periode in uw SBU omvat. (bij 9≤ vragen hoeveel)

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9≤ | jaar |

A2. Geef aan hoe belangrijk het specificeren van onderstaande punten is binnen uw SBU's strategisch planning proces…

		Helemaal niet				Zeer belangrijk	
a.	doelen	1 2 3 4 5 6 7
b.	manieren voor het creëren van concurrentievoordeel	1 2 3 4 5 6 7
c.	agenda's en middelen	1 2 3 4 5 6 7

d. Zet de volgende alternatieven in volgorde (1.-4.) van hoe uw strategisch proces verloopt.
Markeer met N/A (NVT) indien een alternatief niet voorkomt in uw strategische planning.

_____ strategieën _____ middelen _____ kerncompetenties _____ doelstellingen

A3. Geef aan in hoeverre uw SBU's strategische planning doelstellingen en middelen voortbrengt die:

		DOELSTELLINGEN	MIDDELEN
		Helemaal niet — Zeer hoge mate	Helemaal niet — Zeer hoge mate
a.	Kwalitatief zijn (bijv. visie, strategisch doel, nieuwe markten, nieuwe technologieën)	1 2 3 4 5 6 7	
b.	Kwantitatief zijn (bijv. financieel zoals EVA, ROCE, omzet, marktaandeel etc.)	1 2 3 4 5 6 7	
c.	Gedetailleerd zijn (bijv. het is duidelijk omschreven waar op te richten of hoe verder te gaan)	1 2 3 4 5 6 7	1 2 3 4 5 6 7
d.	Accuraat (bijv. prestatie / implementatie kan met zekerheid worden bepaald)	1 2 3 4 5 6 7	1 2 3 4 5 6 7
e.	Gedocumenteerd zijn (d.w.z. opgeschreven)	1 2 3 4 5 6 7	1 2 3 4 5 6 7

A4. Geef aan hoe vaak uw SBU's strategische doelstellingen en middelen worden herzien en aangepast.

		DOELSTELLINGEN		MIDDELEN	
		Herzien	Aangepast	Herzien	Aangepast
a.	Maandelijks				
b.	Ieder kwartaal				
c.	Drie keer per jaar				
d.	Twee keer per jaar				
e.	Jaarlijks				
f.	Tweejaarlijks				
g.	Driejaarlijks of minder vaak				

A5. Geef aan wie betrokken is bij het **bepalen** van uw SBU's strategische doelstellingen en middelen.

		DOELSTELLINGEN	MIDDELEN
a.	SBU TMT met corporate management		
b.	Alleen SBU TMT		
c.	Alleen SBU management, inclusief één laag managers onder SBU TMT		
d.	Alleen SBU management, inclusief twee lagen managers onder SBU TMT		
e.	Meer dan twee lagen managers onder SBU TMT		
f.	Kruis dit vakje aan als ook ondersteunende functies betrokken zijn.		

A6. Hoe belangrijk is strategische planning in het leidinggeven en het aansturen van het gedrag van ondergeschikten?

Helemaal niet   Zeer belangrijk
1 2 3 4 5 6 7

Sectie B.   Korte-termijn Planning (Short-term Planning Content and Process)

B1. Geef aan hoe strategische doelstellingen en middelen in uw SBU vertaald worden in **korte-termijn actieplannen**.

a. Actieplannen worden vastgesteld door de top en opgedragen aan lagere niveaus ter uitvoering

b. Belangrijke gebieden van actie worden door de top bepaald en ondergeschikten moeten specifieke actieplannen maken.

c. Actieplannen ontstaan in intensieve onderhandelingen binnen de planningsrichtlijnen die het top management bepaalt.

d. Actieplannen worden gebaseerd op interpretaties van ondergeschikten over hoe zij de strategische doelen van hogere niveaus kunnen beïnvloeden.

e. Ondergeschikten bepalen autonoom acties binnen strategische thema´s van het bedrijf.

B2. Geef aan hoe korte-termijn doelen vastgesteld worden in uw SBU.

	DOELSTEL LINGEN	MIDDELEN
a. Top management stelt doelen en geeft die door aan ondergeschikten.		
b. Top management stelt doelen, maar herziet ze in overleg met ondergeschikten.		
c. Doelen worden vastgesteld tijdens vrij een lang, iteratief onderhandelingsproces tussen verschillende niveaus in de organisatie.		
d. Ondergeschikten bepalen autonoom doelen, maar ze moeten door top management goedgekeurd worden.		
e. Ondergeschikten bepalen autonoom doelen met weinig of geen tussenkomst van het management.		

B3. Geef aan hoe vaak het doelniveau van de prestaties, actieplannen en de toewijzing van middelen geüpdatet worden in uw SBU.

	DOELNIVEAU PRESTATIES	ACTIEPLANNEN	TOEWIJZING MIDDELEN
a. Bijna continu, zeg wekelijks			
b. Maandelijks			
c. Tweemaandelijks			
d. Ieder kwartaal			
e. Drie keer per jaar			
f. Twee keer per jaar			
g. Jaarlijks			

B4. Geef aan hoe belangrijk het is dat korte-termijn plannen voor ondergeschikten informatie bevatten over…

	Helemaal niet						Zeer belangrijk
a. voortgangsschema van activiteiten, projecten, etc.	1	2	3	4	5	6	7
b. coördinatie-activiteiten binnen en tussen de afdelingen	1	2	3	4	5	6	7
c. het vormen van multidisciplinaire projecten en projectteams	1	2	3	4	5	6	7
d. benodigde financiële middelen	1	2	3	4	5	6	7
e. personeelsbehoeften	1	2	3	4	5	6	7
f. benodigde vaardigheden en competenties	1	2	3	4	5	6	7
g. benodigde IT-middelen	1	2	3	4	5	6	7

B5. Hoe belangrijk is korte-termijn planning in het leidinggeven en het aansturen van het gedrag van ondergeschikten?

Helemaal niet   Zeer belangrijk
1   2   3   4   5   6   7

Sectie C.   Prestatiemeting en Evaluatie (Performance Measurement and Evaluation)

C1. Geef aan hoe SBU TMT probeert om de OPEX en CAPEX te beheersen van de units die aangestuurd worden door ondergeschikten. (OPEX = Operating Expenses, CAPEX = Capital Expenses)

Kosten zijn…

		OPEX	CAPEX
a.	vast (bijv. vast jaarlijks budget)		
b.	relatief vast (bijv. aanvullende budgetten komen zelden voor maar zijn mogelijk)		
c.	relatief flexibel (bijv. aanvullende budgetten zijn gewoon/normaal)		
d.	flexibel, ze gaan omlaag/omhoog met het output volume (bijv. kosten per stuk worden gecontroleerd, €/stuk)		
e.	flexibel, ze gaan omlaag/omhoog met de omzet (kosten zijn een % van de omzet, ROI, ROCE)		
f.	geval per geval bepaald		

C2. Gebruikt het SBU TMT budgettaire systemen om het gedrag van ondergeschikten te sturen en te controleren? (bijv. budgetten, voorspellingen en variatieanalyse) ____ Ja ___ Nee
Gebruikt het SBU TMT prestatiemeetsystemen om het gedrag van ondergeschikten te sturen en te controleren? (bijv. financiële en niet-financiële indicatoren) ____ Ja ___ Nee

Geef bij de volgende vragen alleen een antwoord voor de kolommen waarop u bij bovenstaande vragen **Ja** geantwoord heeft.

In hoeverre maakt het SBU TMT gebruik van budgetten **en/of** prestatiemeetsystemen voor het volgende:

		Budgetten		Prestatiemeetsystemen	
		Helemaal niet — Zeer hoge mate		Helemaal niet — Zeer hoge mate	
a.	Identificeren van kritieke prestatievariabelen. (d.w.z. factoren die de voortgang van strategische doelen weergeven)	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
b.	Doelen vaststellen voor kritieke prestatievariabelen.	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
c.	Voortgang controleren en afwijkingen corrigeren ten opzichte van vooraf vastgestelde kritieke prestatiedoelstellingen.	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
d.	Regelmatig en periodiek voorzien in een agenda voor topmanagement activiteiten.	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
e.	Ondergeschikten regelmatig en periodiek voorzien van een agenda met activiteiten.	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
f.	Mogelijk maken om continu de onderliggende data, aannames en actieplannen met ondergeschikten kritisch te beoordelen.	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
g.	Aandacht vestigen op strategische onzekerheden. (d.w.z. kansen en bedreigingen)	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
h.	Mogelijk maken en stimuleren van dialoog en informatie uitwisseling met ondergeschikten.	1 2 3 4 5 6 7		1 2 3 4 5 6 7	

C3. Geef aan in welke mate SBU TMT de prestatie evaluatie van ondergeschikten baseert op:

	Helemaal niet					Zeer hoge mate
a. Financiële indicatoren.	1 2 3 4 5 6 7
b. Niet-financiële indicatoren.	1 2 3 4 5 6 7
c. Specifieke indicatoren. (bijv. bepaalde kosten- en opbrengstenlijnen, tijd, kwaliteit etc.)	1 2 3 4 5 6 7
d. Geaggregeerde indicatoren. (bijv. EBIT, winst, ROI, ROCE, marktaandeel, merkwaarde, merkimago, totale klanttevredenheid, etc.)	1 2 3 4 5 6 7
e. Successen/prestaties in leiderschapsgedrag.	1 2 3 4 5 6 7
g. Ondernomen acties en activiteiten.	1 2 3 4 5 6 7
h. Individuele/persoonlijke/zelfstandige inzet.	1 2 3 4 5 6 7

i. Voor hoeveel prestatie indicatoren houdt het SBU TMT ondergeschikten, gemiddeld, verantwoordelijk? _____

C4. Geef aan in welke mate SBU TMT de prestatie van ondergeschikten evalueert in relatie tot…

	Helemaal niet					Zeer hoge mate
a. Vaste vooraf vastgestelde waarden (euro´s, tijd, %)	1 2 3 4 5 6 7
b. Interne benchmarks (ranglijstpositie)	1 2 3 4 5 6 7
c. Externe benchmarks (ranglijstpositie)	1 2 3 4 5 6 7
d. Prestaties uit het verleden (trendmatige evaluatie)	1 2 3 4 5 6 7

C5. Geef aan hoe belangrijk de volgende wijzen van prestatie evaluatie zijn in uw SBU:

	Niet belangrijk					Zeer belangrijk
a. Feedback geven om te leren en voor continue verbetering.	1 2 3 4 5 6 7
b. Bepalen van beloningen voor ondergeschikten.	1 2 3 4 5 6 7
c. Aandacht van ondergeschikten op belangrijke zaken richten.	1 2 3 4 5 6 7

C6. Geef aan hoe vaak **formele** prestatie evaluaties plaatsvinden (voor het bepalen van beloningen of het geven van individuele feedback) in uw SBU.

	LEIDERSCHAPS-PRESTATIES	BEDRIJFS-PRESTATIES
a. Maandelijks		
b. Ieder kwartaal		
c. Drie keer per jaar		
d. Twee keer per jaar		
e. Een keer per jaar		
f. Minder dan een keer per jaar		
g. Niet van toepassing		

C7. Hoe belangrijk is prestatiemeting en evaluatie in het leidinggeven en het aansturen van het gedrag van ondergeschikten?

Helemaal niet					Zeer belangrijk
1 2 3 4 5 6 7

Sectie D. Beloningen (Rewards and Compensation)

D1. a) Noem de belangrijkste prestatie indicatoren voor het bepalen van de financiële beloningen van uw ondergeschikten.

b) Geef aan welk gewicht (%) iedere prestatie indicator heeft binnen de beloningsformule.

c) Geef aan op welk niveau de prestatie indicator berekend wordt.

C = Corporate

S = SBU

B = BU

P = Persoonlijk (leiderschap)

Indicator 1

_____   _____   _____

Indicator 2

_____   _____   _____

Indicator 3

_____   _____   _____

Indicator 4

_____   _____   _____

Indicator 5

_____   _____   _____

D2. Geef aan in welke mate de volgende stellingen de wijze van evaluatie en beloning van de prestaties van ondergeschikten in uw SBU weergeven.

	Helemaal niet					Zeer hoge mate	
a. Wij bepalen het gewicht van de prestatie indicatoren als de evaluatie plaatsvindt.	1	2	3	4	5	6	7
b. Wij evalueren de prestaties op basis van kwantitatieve criteria.	1	2	3	4	5	6	7
c. Wij passen het bedrag van de bonus aan op basis van actuele omstandigheden.	1	2	3	4	5	6	7
d. Wij gebruiken vooraf bepaalde criteria bij de evaluatie en beloning.	1	2	3	4	5	6	7

D3. Geef aan in welke mate…

	Helemaal niet					Zeer hoge mate	
a. Prestatiecontracten worden aangepast voor iedere ondergeschikte.	1	2	3	4	5	6	7
b. Financiële beloningen gelijkmatig worden verdeeld onder ondergeschikten. (bijv. winstdeling)	1	2	3	4	5	6	7
c. Financiële beloningen van ondergeschikten toenemen als de prestaties de doelstellingen overtreffen.	1	2	3	4	5	6	7
d. Beloningen financieel zijn. (bonussen, aandelen)	1	2	3	4	5	6	7
e. Beloningen niet-financieel zijn. (bijv. erkenning, promotie, training)	1	2	3	4	5	6	7

D4. Hoe belangrijk zijn de volgende doelen van financiële en niet-financiële beloningen in uw SBU?

	Financieel							Niet-financieel						
	Helemaal niet				Zeer belangrijk			Helemaal niet				Zeer belangrijk		
a. Betrokkenheid creëren van ondergeschikten	1	2	3	4	5	6	7	1	2	3	4	5	6	7
b. Motiveren van ondergeschikten	1	2	3	4	5	6	7	1	2	3	4	5	6	7
c. Aandacht van ondergeschikten sturen	1	2	3	4	5	6	7	1	2	3	4	5	6	7

D5. Belang van beloningen.

a. Hoeveel procent van hun totale jaarlijkse inkomen kunnen uw ondergeschikten ontvangen als prestatiegerelateerde bonussen in uw SBU?

Percentage (%) van jaarsalaris

_____

b. Hoe belangrijk zijn lonen en beloningen in het leidinggeven en het aansturen van het gedrag van ondergeschikten?

Helemaal niet					Zeer belangrijk	
1	2	3	4	5	6	7

Sectie E.   Organisatiestructuur en Management Processen (Organisational Structure and Management Processes)

E1. Geef aan hoe vaak verschillende typen van managementgroepen bijeenkomen.

	Mgt groepen binnen de SBU en BUs	Mgt groepen met leden van SBU en diverse BU's
a. Wekelijks		
b. Tweewekelijks		
c. Maandelijks		
d. Tweemaandelijks		
e. Ieder kwartaal		

	Dynamisch Stabiel	Dynamisch Stabiel
f. In hoeverre zijn management groepsstructuren stabiel? (d.w.z. dezelfde personen vormen altijd dezelfde managementgroep = stabiel)	1 2 3 4 5	1 2 3 4 5

	Klein Uitgebreid	Klein Uitgebreid
g. Hoe uitgebreid zijn managementgroepen? (Naast de verantwoordelijke "(B)U-managers met financiële verantwoordelijkheid" nemen "middle managers" en experts deel = uitgebreid)	1 2 3 4 5	1 2 3 4 5

E2. Geef aan in welke mate ondergeschikten…

	Helemaal niet Zeer hoge mate
a. meerdere rapportagelijnen hebben	1 2 3 4 5 6 7
b. naast het "managen" van een afdeling nog andere functies hebben (bijv. hoofd kwaliteitsontwikkeling)	1 2 3 4 5 6 7
c. relevante informatie ontvangen via informele gesprekken	1 2 3 4 5 6 7
d. relevante informatie ontvangen via management informatie systemen	1 2 3 4 5 6 7
e. vrije toegang hebben tot informatie over de prestaties van BU's en de onderneming als geheel	1 2 3 4 5 6 7

E3. Vergelijk de **mate van invloed** die SBU TMT heeft met die van ondergeschikten op de volgende beslissingen.

	SBU TMT heeft alle invloed / gelijk / Ondergeschikten hebben alle invloed
a. Opstarten van nieuwe activiteiten/businesses	1 2 3 4 5 6 7
b. Ontwikkeling van nieuwe producten/diensten	1 2 3 4 5 6 7
c. Uitbreiding/vergroting investeringen	1 2 3 4 5 6 7
d. Vervangingsinvesteringen	1 2 3 4 5 6 7
e. Projectfinanciering	1 2 3 4 5 6 7
f. Prijsstelling van producten/diensten	1 2 3 4 5 6 7
g. Keuze van distributiekanaal	1 2 3 4 5 6 7
h. Kiezen en contracteren van klanten	1 2 3 4 5 6 7
i. Kiezen en contracteren van leveranciers	1 2 3 4 5 6 7
j. Prioriteren van activiteiten	1 2 3 4 5 6 7
k. Beloningsbeleid en beloningen binnen de BU	1 2 3 4 5 6 7
l. Aannemen en ontslaan van medewerkers binnen de BU	1 2 3 4 5 6 7
m. Werkprocesafspraken binnen de BU	1 2 3 4 5 6 7

E4. Bij het leidinggeven en het aansturen van het gedrag van ondergeschikten, in welke mate …

		Helemaal niet						Zeer hoge mate
a.	gebruikt u ondernemingsbrede gedragscodes en soortgelijke afspraken?	1	2	3	4	5	6	7
b.	moeten er goedkeuringen gevraagd worden? (bijv. pre-action controls)	1	2	3	4	5	6	7
c.	gebruikt u niveaus van schriftelijk toestemming en beslisregels?	1	2	3	4	5	6	7
d.	maakt u de sancties op onethisch zakendoen bekend voor ondergeschikten? (bijv. middels schriftelijke verklaringen)	1	2	3	4	5	6	7
e.	gebruikt u schriftelijke richtlijnen om te experimenteren die voorzien in specifieke gebieden voor, of beperkingen op, het zoeken naar kansen/mogelijkheden?	1	2	3	4	5	6	7
f.	communiceert u actief schriftelijk de risico's en activiteiten die vermeden moeten worden door ondergeschikten?	1	2	3	4	5	6	7
g.	past u sancties toe op ondergeschikten die zich bezighouden met risico's buiten het organisatiebeleid, ongeacht de uitkomst?	1	2	3	4	5	6	7
h.	specificeert u minimumeisen (bijv. ROI, implementatietijd) voor business opportunities?	1	2	3	4	5	6	7

E5. Hoe belangrijk zijn de volgende zaken bij het leidinggeven en het aansturen van het gedrag van ondergeschikten?

		Helemaal niet						Zeer belangrijk
a.	managementprocessen	1	2	3	4	5	6	7
b.	organisatiestructuur	1	2	3	4	5	6	7
c.	regels en procedures	1	2	3	4	5	6	7

Sectie F.   Organisatiecultuur en Waarden (Organization Culture and Values)

F1. Geef aan in welke mate…

		Helemaal niet					Zeer hoge mate
a.	promoties plaatsvinden met mensen binnen de organisatie?	1 2 3 4 5 6 7
b.	rotatie van ondergeschikten tussen verschillende posities als een belangrijke voorwaarde wordt gezien voor promotie?	1 2 3 4 5 6 7
c.	vaardigheden en technische competenties van belang zijn bij de werving voor leidinggevende functies?	1 2 3 4 5 6 7
d.	psychologische tests en waarden van belang zijn bij de werving voor leidinggevende functies?	1 2 3 4 5 6 7
e.	zijn leiderschapsprestaties verbonden met aanzienlijke beloningen? (bijv. promoties, aandelenpakketten)	1 2 3 4 5 6 7
f.	worden opleidings- en ontwikkelingsprocessen gebruikt om SBU doelen, verwachtingen en normen te versterken?	1 2 3 4 5 6 7
g.	worden sociale gebeurtenissen en functies gebruikt om betrokkenheid bij de SBU te ontwikkelen en te behouden?	1 2 3 4 5 6 7
h.	worden begeleiding, oriëntatie en introductieprogramma's gebruikt om nieuwe managers te acclimatiseren tot aanvaardbaar gedrag, routines en normen?	1 2 3 4 5 6 7

F2. Geef aan in welke mate …

		Helemaal niet					Zeer hoge mate
a.	het doel en de waarden van de SBU zijn vastgelegd in formele documenten? (bijv. verklaring over waardes, credo's, verklaring van doelstellingen)	1 2 3 4 5 6 7
b.	formele verklaringen over waarden gebruikt worden om **betrokkenheid** bij ondergeschikten te creëren voor de lange-termijn doelstellingen van de SBU?	1 2 3 4 5 6 7
c.	formele verklaringen van waarden gebruikt worden om ondergeschikten te **motiveren** bij het delen van verantwoordelijkheid?	1 2 3 4 5 6 7
d.	u erop rekent dat verklaringen van waarden en missie het handelen van ondergeschikten sturen?	1 2 3 4 5 6 7
e.	de richting van de SBU vastgelegd is in formele documenten? (bijv. visie, verklaring van strategisch doel)	1 2 3 4 5 6 7
f.	de visie zo beknopt is dat uw ondergeschikten hem altijd kunnen herinneren?	1 2 3 4 5 6 7
g.	de visie zo specifiek is dat het uw ondergeschikten helpt om 'nee' te zeggen tegen sommige kansen?	1 2 3 4 5 6 7
h.	u erop rekent dat de visie uw ondergeschikten helpt bij hun handelen?	1 2 3 4 5 6 7

F3. Hoe belangrijk zijn waarden en organisatiecultuur in het leidinggeven en het aansturen van het gedrag van ondergeschikten?

Helemaal niet   Zeer belangrijk
1   2   3   4   5   6   7

Sectie G.   Organisatie en Omgeving (Organization and Environment)

G1. Geef aan in welke mate u het eens bent met het volgende:

		Helemaal niet					Zeer hoge mate	
a.	Wij concurreren op de laagste prijs.	1	2	3	4	5	6	7
b.	Wij concurreren op snelle introductie van producten/diensten.	1	2	3	4	5	6	7
c.	Wij concurreren op het bieden van oplossingen die de kosten van klanten verlagen.	1	2	3	4	5	6	7
d.	Wij concurreren op superieure gebruikerservaring, omdat veel producten en diensten een aanvulling op ons aanbod zijn.	1	2	3	4	5	6	7
e.	Ons succes is afhankelijk van het marktaandeel van ons product/dienst.	1	2	3	4	5	6	7
f.	Ons succes is afhankelijk van beschikbaar inkomen.	1	2	3	4	5	6	7
g.	Ons succes is afhankelijk van de nieuwigheid van de producten/diensten.	1	2	3	4	5	6	7
h.	Ons succes is afhankelijk van het aantal leveranciers van aanvullende producten/diensten.	1	2	3	4	5	6	7
i.	Ons succes wordt gedreven door procesinnovaties.	1	2	3	4	5	6	7
j.	Ons succes wordt gedreven door productinnovaties.	1	2	3	4	5	6	7
k.	Ons succes wordt gedreven door een grondige kennis van onze klanten en de markt.	1	2	3	4	5	6	7
l.	Ons succes wordt gedreven door een open samenwerking met diverse organisaties.	1	2	3	4	5	6	7

G2. Geef aan hoe belangrijk de volgende prestatiegebieden zijn voor uw SBU op dit moment:

		Helemaal niet					Zeer belangrijk	
a.	Financiële resultaten (bijv. jaarlijkse winst, return on assets, kostenbesparingen)	1	2	3	4	5	6	7
b.	Klantenrelaties (bijv. marktaandeel, klanttevredenheid, klantenbinding)	1	2	3	4	5	6	7
c.	Personeelsrelaties (bijv. personeelstevredenheid, omzet, personeelsbekwaamheid)	1	2	3	4	5	6	7
d.	Operationele prestaties (bijv. productiviteit, veiligheid, doorlooptijd)	1	2	3	4	5	6	7
e.	Kwaliteit (bijv. uitvalpercentages, kwaliteitsonderscheidingen)	1	2	3	4	5	6	7
f.	Allianties (bijv. gezamenlijke marketing of product ontwerp, joint ventures, open technologieplatform)	1	2	3	4	5	6	7
g.	Leveranciersrelaties (bijv. tijdige levering, inbreng bij product-/dienstontwerp, hulp van leverancier)	1	2	3	4	5	6	7
h.	Omgevingsprestaties (bijv. overheidscitaten, naleving van milieuwetgeving of certificaten)	1	2	3	4	5	6	7
i.	Innovatie (bijv. succes bij ontwikkeling van nieuwe producten/diensten, procesinnovatie, business concept innovatie)	1	2	3	4	5	6	7
j.	Maatschappij (bijv. imago, betrokkenheid van de gemeenschap)	1	2	3	4	5	6	7
k.	Lobbyen (bijv. lokaal, nationaal, EU autoriteiten)	1	2	3	4	5	6	7

G3. Geef aan in welke mate u het eens bent met de stellingen.

Het totaalpakket van management controlesystemen helpt het SBU TMT om …

		Helemaal niet					Zeer hoge mate	
a.	uitdagende/agressieve doelen te stellen voor ondergeschikten	1 2 3 4 5 6 7
b.	creatieve uitdagingen te geven aan ondergeschikten in plaats van nauwkeurig omschreven taken	1 2 3 4 5 6 7
c.	ondergeschikten te belonen of straffen op basis van strikt gemeten bedrijfsprestaties	1 2 3 4 5 6 7
d.	ondergeschikten verantwoordelijk te houden voor hun prestaties	1 2 3 4 5 6 7
e.	ondergeschikten voldoende autonomie te geven om hun werk goed uit te voeren	1 2 3 4 5 6 7
f.	beslissingen door te schuiven naar het laagste geschikte niveau	1 2 3 4 5 6 7
g.	ondergeschikten eenvoudig toegang te geven tot de informatie die zij nodig hebben.	1 2 3 4 5 6 7
h.	ondergeschikten hun beslissingen te laten baseren op feiten en analyses. (niet op verborgen agenda's)	1 2 3 4 5 6 7

G4. Geef aan in welke mate u het eens bent met de stellingen.

Het totaalpakket van management controlesystemen van de SBU …

		Helemaal niet					Zeer hoge mate	
a.	werkt samenhangend om de algemene doelstellingen van deze organisatie te ondersteunen	1 2 3 4 5 6 7
b.	zorgt ervoor dat wij middelen verspillen aan niet-productieve activiteiten	1 2 3 4 5 6 7
c.	geeft mensen tegenstrijdige doelstellingen, zodat ze uiteindelijk langs elkaar heen werken	1 2 3 4 5 6 7
d.	moedigt mensen aan om achterhaalde tradities/gewoontes/heilige koeien te betwisten	1 2 3 4 5 6 7
e.	is flexibel genoeg om ons in staat te stellen snel te reageren op veranderingen in onze markt	1 2 3 4 5 6 7
f.	ontwikkelt zich snel in reactie op veranderingen in onze ondernemingsprioriteiten	1 2 3 4 5 6 7

G5. Geef aan in welke mate u het eens bent met de stellingen.

Onze SBU slaagt omdat we …

		Helemaal niet					Zeer hoge mate	
a.	in staat zijn om nieuwe technologieën te ontdekken en ontwikkelen	1 2 3 4 5 6 7
b.	in staat zijn om innovatieve producten/diensten voort te brengen	1 2 3 4 5 6 7
c.	creatieve oplossingen vinden om aan de behoeften van onze klanten te voldoen	1 2 3 4 5 6 7
d.	nieuwe klantsegmenten en behoeften vinden	1 2 3 4 5 6 7
e.	het niveau van automatisering in onze activiteiten verhogen	1 2 3 4 5 6 7
f.	ons aanbod fine-tunen om onze huidige klanten tevreden te houden	1 2 3 4 5 6 7
g.	langdurige relaties met klanten verdiepen en creëren	1 2 3 4 5 6 7
h.	uitgebreid samenwerken met verschillende organisaties	1 2 3 4 5 6 7

G6. Vul de volgende financiële informatie in

Jaarwinst	2010	_____ M€	2009	_____ M€
Totale activa	2010	_____ M€	2009	_____ M€
Bedrijfsresultaat (EBIT)	2010	_____ M€	2009	_____ M€

	Ruim onder		Branche gemiddelde			Ruim boven
Hoe presteert uw organisatie ten opzichte van het branche-gemiddelde? (ROI ten opzichte van branchegemiddelde)	1	2	3	4	5	6	7

G7. Deze vraag gaat over de concurrentieomgeving en operationele omgeving van uw SBU. In de afgelopen drie jaar:
   i) Hoeveel veranderingen hebben zich voorgedaan die een **belangrijke impact** hebben gehad op de aard van uw bedrijf?
   ii) Hoe voorspelbaar of onvoorspelbaar waren veranderingen in de externe omgeving?

	i) Aantal veranderingen		ii) Voorspelbaarheid	
	Zeer weinig veranderingen ... Zeer veel veranderingen		Zeer onvoorspelbaar ... Zeer voorspelbaar	
a. *Klanten* (bijv. vraagniveau, klantbehoeften)	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
b. *Leveranciers* (bijv. markten voor belangrijke grondstoffen, kwaliteit van bronnen/input)	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
c. *Concurrenten* (bijv. concurrenten die toetreden/uittreden, strategieën)	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
d. *Technologisch* (bijv. R&D vooruitgang, procesinnovaties)	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
e. *Regelgeving* (bijv. nieuwe initiatiefwetten, regelgeving)	1 2 3 4 5 6 7		1 2 3 4 5 6 7	
f. *Economisch* (bijv. interest en wisselkoersen)	1 2 3 4 5 6 7		1 2 3 4 5 6 7	

G8. De volgende vragen hebben betrekking op de complexiteit en vijandigheid van uw externe omgeving.

	Zeer vergelijkbaar ... Zeer divers
a. Hoe divers zijn de eisen van uw klanten aan uw producten/diensten?	1 2 3 4 5 6 7
b. Hoe divers zijn de strategieën van uw belangrijkste concurrenten?	1 2 3 4 5 6 7

	Zeer lage intensiteit ... Zeer hoge intensiteit
c. Hoe intens is de concurrentie voor uw belangrijkste producten/diensten?	1 2 3 4 5 6 7

	Zeer makkelijk ... Zeer moeilijk
d. Hoe moeilijk is het om de benodigde inputs (o.a. grondstoffen, personeel, etc.) te verkrijgen voor uw bedrijf?	1 2 3 4 5 6 7

G9. Geef aan welke functies volledig beheerd worden door uw SBU, d.w.z. deze functies zijn geen onderdeel van gedeelde middelen met andere SBU's in uw organisatie. (Kruis de relevante vakjes aan)

HOOFDFUNCTIES
Research and development (R&D) [ ]
Inkomende logistiek [ ]
Productie [ ]
Uitgaande logistiek [ ]
Marketing en verkoop [ ]
After-sales service [ ]

ONDERSTEUNENDE FUNCTIES
Informatietechnologie [ ]
Personeelsmanagement [ ]
Financiële administratie [ ]
Inkoop [ ]

G10. SBU / DIVISIE INFORMATIE

a. Hoeveel werknemers zijn er in uw SBU?   _____werknemers

b. In hoeveel landen is uw SBU actief?   _____landen

c. Wat is de belangrijkste branche van uw SBU?   _____

d. In welk land is uw moedermaatschappij gevestigd?   _____

e. Is uw SBU onderdeel van een beursgenoteerd bedrijf?   ____ Ja ____ Nee

f. Wie is de <u>belangrijkste</u> eigenaar van uw organisatie? (Kies er één)
   i. ____ Leden van coöperatieve vennootschap   v. ____ Durfkapitalisten
   ii. ____ Grote institutionele investeerders   vi. ____ Families
   iii. ____ Kleine particuliere investeerders   vii. ____ Overheid
   iv. ____ Gemeenten (Lokale overheden)   viii. ____ Vennoten

g. Welke accounting standaarden zijn de financiële verslagen van uw SBU op gebaseerd?

____ IFRS   ____ US-GAAP
____ Local GAAP   ____ Other

h. Voldoet uw SBU aan SOX (Sarbanes-Oxley Act)?   ____ Ja   ____ Nee   ____ Deels

i. Welk percentage van uw inkomsten is gebaseerd op interne verkopen?   ____ %

j. Heeft uw SBU de **concurrentie**strategie aanzienlijk veranderd in de afgelopen drie jaar?   ____ Ja   ____ Nee

k. Heeft het management controlesysteem in uw SBU in de afgelopen drie jaar kleine, grote of geen veranderingen ondergaan?   ____ Kleine   ____ Grote   ____ Geen

l. Indien er <u>grote</u> veranderingen hebben plaatsgevonden, geef aan op welk(e) gebied(en) van het management controlesysteem
   i. ____Strategische planning   v. ____ Beloningen en stimuleringssystemen
   ii. ____Korte-termijn planning   vi. ____ Regels, procedures en beleid
   iii. ____Prestatiemeting   vii. ____ Rapportage relaties & management teams
   iv. ____Prestatie evaluatie   viii. ____ Cultuurbeheer (waarden, visie, persoonlijke doelen)

G11. Geef aan welke van de volgende alternatieven het best de impact van het hoofdkantoor op uw SBU weergeeft?

a. Corporate management is primair geïnteresseerd in de financiële resultaten van de SBU en vestigt dus aandacht op het bereiken van financiële doelstellingen. De SBU heeft grote autonomie op het gebied van strategische planning.

b. Corporate management benadrukt, naast de financiële resultaten van de SBU, het vaststellen van strategische doelstellingen en het verwezenlijken van deze doelstellingen. De SBU heeft vooral autonomie voor het maken van korte-termijn plannen.

c. Corporate management accepteert strategische plannen van, en definieert strategische en financiële doelstellingen voor de SBU. Het hoofdkantoor bepaald de doelstellingen van geval tot geval.

d. Corporate management neemt actief deel aan de strategische planning van de SBU. Specificatie en realisatie van strategische doelstellingen krijgen de nadruk, zelfs ten koste van financiële doelstellingen.

G12. Verdeel 100 punten over de volgende alternatieven, afhankelijk van hoe het SBU TMT ze benadrukt in het leidinggeven en het aansturen van het gedrag van ondergeschikten.

1. Strategische en korte-termijn planning, prestatiemeting en evaluatie, beloning	
2. Administratieve structuur (managementgroepen, rapportagelijnen, regels, procedures)	
3. Organisatiecultuur (missie, visie, waarden, etc.)	
4. Autocratische, directe controle (≈niet delegeren/in eigen hand houden)	
5. Leiden door voorbeeldfunctie te zijn	
6. Participatieve coaching	
TOTAAL	100 punten

Annex 2 – Enquired companies with its respondents

Company name	Sensata Technologies	Eaton	Mediq	Nedap
Employees total	10.000	103.000	8.300	700
Employees SBU/establishment	300	1.000	8.300	550
Headquarter	Attleboro, Massachusetts	Cleveland, Ohio	Utrecht	Groenlo
Location SBU/establishment	Almelo	Hengelo	Utrecht	Groenlo
Industry[13]	Scientific & Technical Instruments[14]	Industrial Electrical Equipment[15]	Pharmaceuticals[16]	Commercial Services[17]
Industry code (SIC)[18]	3823	3612	2834	3523

Table 14: Facts & figures about enquired companies

Company name	Sensata Technologies	Eaton	Mediq	Nedap
Respondent	Marc Roskam	Bert Alberts	Jan de Jong	Ruben Wegman
Function/position	CFO (Europe)	Plant manager	Manager Zorgverzekeraars/ Manager Health Insurerers	CEO
Working for company	1 year	20 years	8 years	14 years
Working in current function	1 year	2,5 years	2 years	2 years

Table 15: Facts & figures about respondents of enquired companies

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[13] The companies can have a diversified products range, which cover more than one industry, but according to information of the mentioned well-known external sources, these can be classified in these industries.

[14] http://finance.yahoo.com/q?s=ST

[15] http://finance.yahoo.com/q?s=ETN

[16] http://www.bloomberg.com/quote/MEDIQ:NA

[17] http://www.bloomberg.com/quote/NEDAP:NA

[18] The companies can have a diversified products range, which cover more than one industry, but they have at least a main activity in the industry mentioned SIC code of the Standard Industry Classification.