

Balancing the Dual Responsibilities of Business Unit Controllers: Field and Survey Evidence

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ABSTRACT

We examine how business unit (BU) controllers balance their dual roles of providing information for both local decision-making (local responsibility) and for corporate control (functional responsibility). First, we present insights from 48 field interviews with controllers at different organizational levels. We describe organizational practices that can increase the emphasis on the functional responsibility of BU controllers and discuss why such an increase may lead to role ambiguity and conflict. Second, we use survey responses of 134 BU controllers to test several predictions motivated by our insights from the field. Consistent with prior literature, we find that a greater emphasis on the functional responsibility of BU controllers is associated with less decision-making support for local management. More importantly, we present new evidence that the emphasis on the functional responsibility of BU controllers is positively associated with role conflict and role ambiguity, both of which can lead to an increased acceptance of data management practices. Thus, measures intended to strengthen corporate control can sometimes achieve quite the opposite.

Keywords: Controllers; role conflict, role ambiguity, earnings management.

Data Availability: Data used in this study are not publicly available due to confidentiality agreements with managers and controllers participating in this study.

I. INTRODUCTION

The governance failures at Enron, WorldCom, Tyco and other companies have cast doubt on the effectiveness of institutions that should protect company assets from managerial opportunism. Several accounting studies have examined the role of auditors in such governance failures and have discussed how auditor independence can be compromised when auditors provide both auditing and consulting services (Francis 2006; Kinney et al. 2004; Ashbaugh et al. 2003; Frankel et al. 2002). Further, there is an extensive literature examining the role of boards of directors in corporate governance which suggests that directors also experience a conflict between their “watchdog” and “advisory” roles (Adams and Ferreira 2007; Bushman and Smith 2001). Our study complements this prior literature by examining the role of business unit (BU) controllers in the financial reporting process.

As in the case of auditors and directors, BU controllers balance conflicting responsibilities and have a great influence on the integrity of financial reporting. BU controllers’ *functional responsibility* is to “fairly and objectively” report on the economic situation of their unit and to facilitate corporate control. However, BU controllers are also members of local management teams and their *local responsibility* is to provide BU management with information and to facilitate strategic and operational decision-making (Jablonsky and Keating 1998; Siegel and Sorensen 1999).

The existing literature, which is largely based on agency theory (e.g., Indjejikian and Matějka 2006; San Miguel and Govindarajan 1984), suggests that BU controllers will better facilitate corporate control and prevent misreporting when firms increase the emphasis on their functional responsibility (e.g., when the functional superior, such as a

corporate CFO, has a greater influence vis-à-vis BU managers on the hiring of BU controllers, their work priorities and/or compensation). This study develops an alternative model based on psychological theories of role perception and dysfunctional behavior.¹ We argue that increasing the emphasis on the functional responsibility of BU controllers can paradoxically have detrimental effects on controllers' ability to act as a "corporate watchdog."

We first present qualitative evidence on how BU controllers themselves view their dual responsibilities of supporting both local decision-making and corporate control over the BU. This evidence is based on 48 interviews with controllers in seven large multinational firms. We find that controllers perceive their local responsibilities as more important than their functional duties. BU controllers' functional superiors are well aware that the reporting relationship between BU controllers and their local managers is the dominant one, and they even actively encourage it. We further describe different organizational practices that increase the emphasis on the functional responsibility of controllers. Finally, we find that a greater emphasis on the functional responsibility through a strengthening of the hierarchical ties with a functional superior, may lead to experiences of ambiguity and conflict.

In the second part of our paper we rely on our qualitative evidence and the organizational psychology literature to develop a theoretical model of the effects of increasing the emphasis on BU controllers' functional responsibility. We predict that greater emphasis on functional responsibilities of BU controllers exposes them to higher levels of role conflict and role ambiguity and makes it increasingly difficult for them to

¹ While a behavioral view has improved our understanding of auditor independence issues (King 2002; Ponemon and Gabhart 1990), it has rarely been used to shed light on the trade-offs inherent in the design of the controller function (for a notable exception see Davis et al. 2006).

cope with their dual responsibilities. Following the literature on role stress and dysfunctional behavior, we further predict that greater controller role conflict and role ambiguity can lead to data management at the local level (e.g., biasing of forecasts, earnings smoothing). Thus, the implication of our model is that a greater emphasis on the functional responsibility of BU controllers can indirectly lead to an increase instead of a decrease in data management practices.

We provide survey evidence using questionnaire responses of 134 BU controllers consistent with this prediction. We furthermore show that strengthening BU controllers' functional ties compromises their role as service providers to local managers. Taken together, our results caution against overly emphasizing the functional responsibility of BU controllers. Not only can this undermine controllers' position in local management teams, it also leads to role conflict and role ambiguity which may adversely affect the integrity of financial reporting.

The paper proceeds as follows. The next section positions the topic of our study in the context of prior literature. Section III presents our qualitative evidence on how controllers view their responsibilities and discusses potential sources of ambiguity and conflict between these responsibilities. Section IV develops our theoretical model, which reflects the different insights from agency theory and the organizational psychology literature. Section V describes the survey data hypotheses tests. Finally, section VI discusses our findings and concludes with suggestions for future research.

II. BU CONTROLLERS' DUAL RESPONSIBILITIES

It has been well documented that BU controllers are involved in many different types of activities and that these activities are clustered around two distinct roles. The

seminal study of Simon et al. (1954) already described an inherent tension between the different responsibilities of BU controllers and noted “a potential conflict between the accountant’s function of providing service to operating departments, and his function of analyzing operations to provide valid and objective data for higher levels of management.” Other studies also recognize the local (“business partner” or “service-aid”) role and the functional (“corporate policeman” or “watchdog”) role as two distinct sets of responsibilities (e.g., San Miguel and Govindarajan 1984; Sathe 1982; Hopper 1980). More recent literature documents that controllers have come under increasing pressure to improve their “business orientation” and to participate more in local decision-making (Burns and Baldvinsdottir 2005; Pierce and O’Dea 2003; Ahrens and Chapman 2000; Siegel and Sorensen 1999; Granlund and Lukka 1998; Jablonsky and Keating 1998). For example, Siegel and Sorensen (1999) in their extensive study of the US management accounting practice found that controllers spent increasing amounts of time preparing operational and strategic decisions. Similarly, Burns and Baldvinsdottir (2005) and Ahrens and Chapman (2000) provide accounts of how controllers have moved from being “passive beancounters” to become proactive members of their units’ management teams.

The importance of this topic is underscored by several streams of management accounting literature that implicitly rely on assumptions about the role of BU controllers in organizational design. For example, much of the literature on budgetary slack (e.g., Webb 2002; Van der Stede 2000) makes the assumption that “the divisional controller has become a viable member of the divisional team by doing his part to facilitate the creation, distribution and management of divisional slack, [which] represents a shift towards divisional interest in the controller’s dual role...” (Onsi 1973). Also, most

studies examining budgetary participation issues only consider information sharing between line managers and thus implicitly assume that parallel information flows via controllers' functional line are largely immaterial for target-setting purposes (e.g., Fisher et al. 2000; Young 1985).² Yet, recent evidence shows that controllers substantially influence the design and use of organizations' planning and budgeting systems and play a role in the prevention or otherwise of budget games such as the creation of slack (Davis et al. 2006; Indjejikian and Matějka 2006). Thus, it seems worthwhile to test some of these implicit assumptions and, more generally, improve our understanding of the determinants and consequences of shifting the balance between the local and the functional responsibilities of BU controllers.

III. FIELD EVIDENCE

As a point of departure, we note that there is relatively little evidence on how BU controllers themselves view the relative importance of their local versus functional responsibilities and how they cope with potential tensions between them. We therefore start out by summarizing insights from an analysis of our qualitative data based on 48 interviews with controllers and finance and accounting staff at the business unit, business group, and corporate level in seven companies (see the appendix for more details).³ Building on this analysis, we proceed in the next section to identify relevant theoretical frameworks and to develop our hypotheses.

² Further, other organizational practices such as the extent to which organizations delegate decision-making authority to BU managers (e.g., Moers 2006; Abernethy et al. 2004) or the extent to which organizations rely on accounting performance measures for the evaluation of managers (e.g. Hartmann 2000) may also be related to the way BU controllers balance their dual responsibilities.

³ All seven companies are organized into relatively independent business groups each of which consists of several BUs (often referred to as operating companies). The functional superiors of BU controllers are business group controllers who in turn have a functional superior at the headquarters (corporate controller or CFO).

Perceptions of the Relative Importance of BU Controllers' Dual Responsibilities

The controller stands for the [BU] where he works. Of course, the controller also has a corporate responsibility within the corporation. So, in some sense, he always has two hats. If you ask me which hat I prefer, then I tell you I am an employee of the [BU]. (BU controller A, company 3)

The above representative quote suggests that BU controllers perceive their local responsibility as the dominant one. This is in part because they can directly see the relevance of their work for local management. Alternatively, they may regularly be reminded of the low relevance of their work for local management (Kaplan 1995; Hopper 1980) which also reinforces the importance of their local role. In contrast, BU controllers' work fulfilling their functional responsibilities is often less rewarding; sometimes it is even hard for them to see the relevance of some corporate reports.

Thus, although BU controllers have two bosses, the BU general manager and a business group controller, the former one is more important in most circumstances. Interestingly, this is not only BU controllers' view but also the view of their functional bosses who are aware that BU controllers and BU managers have a very close relationship and actively encourage that:

For me, a [BU controller] and a [BU manager] are one party. I am not going to say to a [BU controller] tell me something but do not tell your boss. I treat them as one. ... I do not want to sit in between them because they have to work together. ... You have to allow some range for the game. You must not want to know everything. (business group controller, company 5)

The above quote implicitly suggests two explanations for why both BU controllers and their functional superiors concur that the reporting relationship with the BU general manager is stronger than the functional one. First, business group and corporate executives realize that exercising corporate control means first and foremost that BUs themselves are "in control." To assure that, corporate executives need local

controllers who actually participate in local decision-making, who get involved in business, which they can achieve by reducing the emphasis on the functional responsibility of controllers and encouraging them to work side-by-side with their local managers (Granlund and Lukka 1998; Jablonsky and Keating 1998). For this reason, one corporate controller even questioned the need to maintain a functional link with business group controllers:

I think that the business group controller ... should make no compromises with his financial responsibility because then he would run the risk of not being taken seriously within the business group, of being by-passed with certain information, and of getting a merely registration function. Whereas I think that the financial discipline has to have a strong influence on the strategy and the policies within the business group. Then, you cannot have dual loyalties. Your loyalty must not be questioned. (corporate controller, company 3)

Second, allowing “some range” for occasional earnings or forecast management “games” practically eliminates the need for BU controllers to use their functional reporting link to discipline local managers. “Outside-of-the-range” events are rare in part because BU controllers are present. In the words of BU controller B (company 2): “If fraud occurs, if some irresponsible things happen, then it is my duty to report it to [the headquarters]. However, that does not happen fortunately. ... Most of the things can be dealt with internally.”

Although both BU controllers and their functional superiors concur that BU controllers’ local role dominates the functional one in everyday situations, we did find variation in the extent to which the functional responsibility of controllers was emphasized in different BUs or business groups. Consistent with Simon et al. (1954) and San Miguel and Govindarajan (1984), we find that the main organizational practices by which corporate headquarters can increase the emphasis on the functional responsibility of controllers are: (i) corporate involvement in appointment and rotation of BU

controllers, (ii) informal communication between BU controllers and their functional superiors, and (iii) firm-wide standardization of systems and reports. In the Appendix, we presents some of the field evidence illustrating the importance of these organizational practices. We draw on this evidence when designing a questionnaire instrument for the survey part of our study.

Conflicts Between BU Controllers' Local and Functional Responsibilities

Given that controllers perceive their local role as the more important one, increasing the emphasis on their functional responsibility puts them under greater pressure and increases the ambiguity of their job demands and the perceived conflict between their local and functional role. This section provides evidence of such conflicts.

An important source of tension for controllers is that increasing the emphasis on their functional role increases their responsibilities but does not provide them with any additional authorities:

There are tasks, responsibilities, and authorities. Controllers do not have many authorities. They have difficult tasks, great responsibilities, but only few authorities. ... The only authority I have is that I can talk to everyone. (corporate controller, company 4)

Thus, controllers can only rarely enforce things directly. Most of the time their influence is indirect, they must be accepted by the local management team (Sathe 1982, 1978):

I do not have the decision-making authority. I would really like to have it. I do get in problems because of that in some instances. ... [Headquarters] contact me, and I also feel I am the responsible one, but I cannot enforce anything. Of course, I try to influence things, but sometimes [our subunits] just work differently. ... If I as the controller get a target of decreasing inventory and accounts receivable and my colleagues are focused on the profit figure, then I get *nothing*, nothing accomplished. (BU controller A, company 2)

It is a source of frustration then if additional corporate reporting requirements limit controllers' capacity to support their local management teams. In the words of BU controller A (company 5): "You have to realize that if a higher level comes up with an ad hoc question and they incorporate it in regular reporting that it is at the cost of what local people get to see."

In addition, controllers also have to deal with intrinsic conflicts between standardized information needed by higher levels for corporate control and information useful for decision-making of local management (Sprinkle 2003; Baiman and Demski 1980). Dealing with these issues raises again the problem of limited authority. In principle, controllers may have the authority to adjust internal reporting to the needs of local management. Practically, however, they often decide to adapt for local purposes whatever they report to higher levels. As higher-level management requires more reports, it becomes increasingly likely that same or similar reports are also used by local management even if they do not quite match local needs. Although improving IT systems make it easier to generate different sets of reports for different organizational levels, the need to work with the same set of figures always remains.

Ultimately, performing well both in the local and functional role of controllers is a matter of delicate balancing, it requires a special talent:

If important things occur in [the BU] that I know would not be liked [by the headquarters], then I have got a problem of how to solve this. If I tackle it in an unfortunate manner, then it makes people here angry. If I do not say anything, close my eyes, then [headquarters] say: 'That is not why we sent you over there, ... we would not have expected this from you.' That requires special skills ... That is what I am good in, that is what I am paid for. (BU controller C, company 2)

What makes the balancing act easier is that functional superiors of controllers do not “want to know everything,” they allow “some range for the game.” Local managers are accustomed to use as much of that “range for the game” as possible:

When making the latest estimates, I say: ‘Guys, what can we realistically deliver?’ ‘Well, you must not show this to [the headquarters], otherwise we again [get a higher target].’ ... It is difficult, ..., the value of those [officially reported] figures for a controller is a bit questionable. (BU controller A, company 2)

Of course, sometimes there are tensions—I may think that our budget contains significant risks, while local management say: ‘Sure, we can make it.’ Then, the controller is in a difficult situation in discussions with [the headquarters]. ... Ultimately, it is the responsibility of the BU manager. If he does not meet the budget (and if that happens for a second time in a row), then he loses his job. (BU controller B, company 2)

I used to have huge fights with my BU manager. I said in the first quarter—this is not going well, I am sure we are going to miss the target by millions unless something changes. Many BU managers have the tendency then to say: ‘You know what you have to do, you have to shut up.’ (BU controller A, company 4)

By increasing the emphasis on the functional responsibility of controllers (be it through more extensive formal reporting requirements or through a more intensive informal communication between controllers at different levels), the functional superior gets “to know more,” becomes more closely involved, and the allowed “range for the game” becomes smaller.

Summary of Field Evidence

From formal job descriptions, BU controllers’ reporting relationships—to the local BU manager and to the functional superior at a higher level (e.g., corporate controller, CFO)—seem equally important. Simon et al. (1954, 18) argue, however, that: “The formal authority relationships do not tell the whole story ... personal feelings of loyalty must be taken into account.” Our qualitative evidence suggests that BU controllers’ loyalties are primarily with the local BU management team. Although BU

controllers understand and accept their professional responsibility of deterring “out-of-the-range” events, it rarely occurs that they have to side with their functional superiors to discipline BU managers.

At the same time, we show that corporate management has various organizational tools at hand to increase the emphasis on the functional responsibility of BU controllers. As consequence, BU controllers have to provide higher level management with more information, allocate more resources to corporate reporting, and/or enforce a greater extent of standardization in BU accounting systems and business processes. Importantly, however, an increase in corporate reporting demands typically does not coincide with greater authorities for BU controllers or fewer demands of local managers. Neither does it affect the primary allegiance of BU controllers to the local management team. Rather, increasing the emphasis on the functional responsibility of BU controllers increases the difficulty of delicately balancing their responsibilities. It requires even more talent and “special skills” to cope with conflicting demands.

IV. THEORY AND HYPOTHESES

Organizational Psychology Theory

The above field observations relate our study to prior literature on organizational-professional conflict of management accountants (Shafer et al. 2002; Shafer 2002; McGregor et al. 1989) and more generally to a large stream of organizational psychology literature that explains organizational participants’ attitudes and behavior from the design of their function and the role expectations placed upon them by their superiors, subordinates and peers (Tubre and Collins 2000; Ilgen and Hollenbeck 1991; Rizzo et al.

1970; Kahn et al. 1964). This literature shows that role conflict and ambiguity are key determinants of organizational behavior.⁴ *Role conflict* is a form of distress that results either when a person in an organization experiences the simultaneous occurrence of two or more sets of pressures, such that compliance with one would make compliance with the other more difficult, or when role pressures somehow violate the moral values or personal needs of the individual in question. *Role ambiguity* is a form of distress that arises if job demands are unclear, for example because several individuals communicate different expectations to a person regarding his or her work behavior.

Using this literature as a framework, we argue that role conflict and role ambiguity are part and parcel of a BU controller's job. Time limits make it difficult to live up to all demands (Hopper 1980); there is incongruity between local and corporate needs (Sathe 1982) and local and functional superiors have different ideas about the relative importance of controllers' tasks (Pierce and O'Dea 2003). Further, our field observations suggest that increasing the emphasis on the functional responsibility reduces BU controllers' leeway to perform the local role and increases the gap between BU controllers' responsibilities and authorities. Consequently, BU controllers will be even more likely to experience great role conflict and role ambiguity in such settings. Thus, we predict that:

H1a: The emphasis on the functional responsibility of BU controllers is positively associated with role conflict.

H1b: The emphasis on the functional responsibility of BU controllers is positively associated with role ambiguity.

⁴ Antecedence and consequences of role conflict and role ambiguity have also widely been studied in the accounting literature (e.g; Collins et al. 1987; Marginson and Ogden 2005; Parker and Kyj 2006; Rebele and Michaels 1990)

Many studies have found that role conflict and role ambiguity are antecedents of dysfunctional workplace attitudes and behaviors (Lau et al. 2003; Abramis 1994; Jackson and Schuler 1985; Fisher and Gitelson 1983). The reason is that individuals who perceive their work demands as conflicting and/or ambiguous react to this frustration by lowering their personal standards and ambitions, so that they become less reluctant to behave in ways that are socially undesirable or counterproductive (Spector 1998; Cox 1978). For example, Yetmar and Eastman (2000) found that role stress made accountants working in tax practice less sensitive to ethical issues and Grover (1993) found that role stress increased the extent to which professionals lie about their behavior.

Thus, the literature on role stress and dysfunctional behavior predicts that an increase in ambiguity and conflict levels makes it less likely that individuals act in accordance with moral standards and professional guidelines. In our setting, BU controllers could compromise their functional duties and yield to pressure of BU management to game corporate control systems (Davis et al. 2006; Merchant 1990; Collins et al. 1987; Birnberg et al. 1983). Our qualitative evidence provides some specific examples such as biasing of forecasts, building slack in performance targets, and manipulating of accruals. In what follows, we refer to such examples of gaming as data management practices at the local level. Accordingly, we test the following hypotheses:

- H2a:** Role conflict is positively associated with data management practices at the local level.
- H2b:** Role ambiguity is positively associated with data management practices at the local level.

Agency Theory

Agency theory is an alternative paradigm motivating the work on the dual roles of controllers (e.g., Baiman 1990, 1982). It starts out from the assumption that BU managers always act to maximize their own utility. Consequently, organizations face a dilemma with regard to the delegation of decision-making authority. On the one hand, decentralization of decision-making rights to BU managers might benefit the organization because BU managers are generally more knowledgeable about the unit's activities and business environment than corporate managers. Thus, they are in a better position to select those action strategies that are most likely to enhance the value of the organization. On the other hand, as BU managers are motivated to act in their own personal interest and not to maximize the value of the organization, decentralization also implies a loss of control and higher agency costs (Christie et al. 2003; Jensen and Meckling 1992).

A related trade-off recognized by agency theorists concerns the provision of (pre-decision) information to BU managers (Penno 1984; Christensen 1981). Extra information enables BU managers to make better decisions. However, given that BU managers' personal objectives are only partly congruent with the goals of the organization, the welfare implications of providing them with this information are unclear as BU managers might use the resulting information asymmetry to extract rents from the organization (Baiman and Sivaramakrishnan 1991; Baiman 1982).

Consistent with the agency theory framework, San Miguel and Govindarajan (1984) argue that firms rely on alternative organizational controls to alleviate information asymmetry problems between corporate managers and BU managers. Specifically, they consider the extent to which internal audit focuses on compliance issues and the extent to

which firms emphasize the functional responsibility of controllers and find some evidence that firms use these two organizational controls as substitutes. Indjejikian and Matějka (2006) also view the emphasis on the functional responsibility of BU controllers as a way to reduce the information asymmetry between corporate and BU management. They find evidence that a greater emphasis on the functional responsibility of BU controllers is associated with less slack in BU performance targets (lower rents for privately informed BU managers) but also with less information being available to support local decision-making.

In summary, this literature views controllers as an abstract mechanism by which firms regulate the extent of information asymmetry. The general predictions are that a higher emphasis on the functional responsibility of BU controllers alleviates information asymmetry and control problems, however, it also reduces the capacity of BU controllers to support local decision-making. These predictions imply that:

- H3:** The emphasis on the functional responsibility of controllers is negatively associated with data management practices at the local level.
- H4:** The emphasis on the functional responsibility of controllers is negatively associated with decision-making support of local management.

The hypothesized relationships are summarized in Figure 1.

--- Figure 1 about here ---

V. SURVEY EVIDENCE

Sample

We collected data for this study using a survey of controllers of decentralized units of large and medium-sized firms in the Netherlands. The Controllers' Instituut—the Dutch professional organization of management accountants—acted as sponsor of this survey. The participants were randomly selected members of the organization working as BU controllers for companies with more than 250 employees.

All steps in the process of designing and administering the questionnaire were made in accordance with Dillmann's (2000) recommendations.⁵ To gain the interest of the target population and to increase the response rate, an article was published in the professional journal that all members of the professional organization receive automatically on a two-month basis. This article announced the research project and described its relevance for practice without specifying the exact purpose of the study. A package containing the questionnaire, a hand-signed cover letter, a pre-stamped envelope and a high-quality pen with the logo of the organization was sent to the 314 members in the sample, approximately one month after the publication of this article. Two follow-up mailings and a round of telephone calls succeeded the initial mailing. This procedure resulted in the return of 186 (59.2%) questionnaires. After excluding questionnaires of respondents no longer working as BU controllers and questionnaires with missing data we obtained the final sample of 134 respondents (43% of those contacted). Tests show no significant differences between early and late respondents with regard to demographics

⁵ A copy of the research instrument is available from the authors upon request.

and mean item scores (both in the total sample of 186 and in the final sample of 134), suggesting non-response bias does not pose a problem for our study.

Variable Measurement

The Emphasis on the Functional Responsibility of Controllers

The field evidence presented in the appendix supports validity of an instrument used in prior literature (San Miguel and Govindarajan 1984; Indjejikian and Matějka 2006) which we adapt for the purpose of our study. Specifically, we measure the functional superior's influence on the BU controller's (i) performance evaluation, (ii) salary increase, (iii) selection and hiring, (iv) firing, (v) promotion or transfer, and (vi) work priorities. Using confirmatory factor analysis (CFA), we test for unidimensionality of the underlying construct and find an acceptable fit ($p=.30$, $RMSEA=.04$, $NNFI=1.00$) after dropping items (ii) and (v).⁶ Reliability of the four-item construct is strong ($\alpha =.93$). We calculate a proxy for the emphasis on the functional responsibility of controllers (EMFUNRES) as an equally weighted average of scores on the four items.

Role Conflict and Role Ambiguity

We rely on the instruments developed by Rizzo et al. (1970) that have been used in most studies examining these constructs (Tubre and Collins 2000; Gregson et al. 1994; Jackson and Schuler 1985). The role conflict scale consists of eight items. These items ask controllers to indicate on a seven point Likert scale to what extent they agree with the following eight statements: (i) I have to do things that should be done differently; (ii) I

⁶ The CFA rejects unidimensionality of the six items mainly because of high bivariate correlations between items (i) and (ii) and items (iv) and (v). Dropping one item from each pair is sufficient to obtain a good fit for a model assuming unidimensionality. We assess model goodness-of-fit by standard measures used in the literature (Bollen 1989).

receive an assignment without the manpower to complete it; (iii) I have to buck a rule or policy in order to carry out an assignment; (iv) I work with two or more groups of people who operate quite differently; (v) I receive incompatible requests from two or more people; (vi) I do things that are apt to be accepted by one person and not accepted by others; (vii) I receive an assignment without adequate resources and materials to execute it; (viii) I work on unnecessary things. Role ambiguity is measured with the six following statements: (a) I feel certain about how much authority I have; (b) It is clear what the goals are for my job; (c) I know that I have divided my time properly over different tasks; (d) I know what my responsibilities are; (e) I know exactly what is expected of me; (f) Explanation is clear of what has to be done.

Based on prior literature, we expected to find two factors explaining variance of the 14 items measuring role conflict and role ambiguity. Nevertheless, a CFA rejects a two factor solution even after modifications improving model fit. This is largely because the role conflict items load on more than one factor. In particular, role conflict items (iii)–(vii) load on a factor unrelated to items (i), (ii), and (viii). In retrospect, it is perhaps not surprising that controllers, who unlike most other organizational participants always have at least two bosses (see section II), attach a different meaning to items (iii)–(vii) which largely reflect conflicting demands of different groups of people. In fact, role conflict due to having different bosses is what we intend to measure in our study. Therefore, we calculate our proxy for role conflict (ROLECNFL) as an equally weighted average of scores on the role conflict items (iii)–(vii). There is support for unidimensionality of the five item construct ($p=.97$, $RMSEA=.00$, $NNFI=1.07$); reliability is somewhat low but still acceptable ($\alpha=.67$).

Consistent with prior literature, we find that the role ambiguity items load on a single factor (after dropping item (e) which correlates closely with item (d)) that is distinct from ROLECNFL. Thus, we calculate our proxy for role ambiguity (ROLEAMBG) as an equally weighted average of scores on the role ambiguity items (a)–(d) and (f). There is support for unidimensionality of the five item construct ($p=.36$, RMSEA=.01, NNFI=1.00); reliability is satisfactory ($\alpha=.75$).

Data Management Practices

Our survey instrument includes two questions pertaining to the extent to which data management practices are likely to occur at the local level. The first question asks controllers how often they are under pressure to make local performance look better in management reports by (i) transferring money between different accounts, (ii) booking transactions late, (iii) booking transactions early, (iv) arranging for slack in performance targets, and (v) re-labeling line items. The second question asks controllers to what extent they find it acceptable to make local performance look better in management reports along the same dimensions (i)–(v).

We assume that high scores on any of the 10 items suggest a greater likelihood that data management practices occur. At the same time, we do not necessarily expect that data management is reflected in high scores on all of the items. This implies that unidimensionality (i.e., high correlations among all pairs of items) is not necessary for an aggregate construct to be valid (Bollen and Lennox 1991). We calculate our proxy for the extent to which data management practices occur (DTMANAGE) as an equally weighted average of scores on all the 10 items. We acknowledge that in the absence of unidimensionality it is hard to assess the measurement error inherent in our proxy.

Nevertheless, aggregating responses on 10 items of two questions capturing different aspects of data management provides some reassurance that the measurement error is contained.

Decision-Making Support of Local Management

We use five items to capture the importance controllers attach to the following five tasks: (i) analyzing product/customer profitability, (ii) evaluating investment opportunities, (iii) developing local business strategy, (iv) helping to meet local targets, (v) reducing costs and increasing earnings. A CFA supports unidimensionality ($p=.51$, RMSEA=.00, NNFI=1.00), reliability is satisfactory ($\alpha=.74$). We calculate a proxy for the importance of supporting the decision-making of local management (LOCALDMS) as an equally weighted average of scores on all the five items.

Control Variables

When testing our hypotheses we also consider results conditional on several characteristics of the local organization and its environment. We calculate our control variables as equally weighted averages of scores on items that have widely been used in prior literature. Based on Whitey et al. (1983), we use four task analyzability items and four task variability items. We use five items of Govindarajan (1984) to measure environmental uncertainty and five items of Abernethy et al. (2004) to measure decentralization. To capture the extent of intrafirm interdependencies, we rely on two items from Keating (1997). Finally, we control for controllers' tenure, BU size (using the log of the number of employees), and we include a dummy variable for BUs within publicly listed firms.

Descriptive Statistics

Table 1 presents basic descriptive information for our main and control variables, while Table 2 reports bivariate correlations. As is clear from Table 1, EMFUNRES has a relatively low mean and high standard deviation which is in part due to many respondents who indicate that functional superiors have almost no influence on controller hiring, evaluation, etc. (the score is 1.00 for about 16% of the sample). Also, the distribution of LOCALDM is skewed to the right because local decision-making support is important on average. Further, BUs in our sample have 344 employees on average and controllers' average tenure is 5.8 years. About 70% of our sample are units of publicly listed companies.

--- Table 1 and 2 about here ---

Main Findings

Our hypotheses H1a and H1b imply a direct positive effect of the emphasis on the functional responsibility of controllers (EMFUNRES) on role conflict (ROLECNFL) and role ambiguity (ROLEAMBG). H2a and H2b in turn, predict direct positive effects of ROLECNFL and ROLEAMBG on data management practices at the local level (DTMANAGE). In addition, H3 predicts a direct negative effect of EMFUNRES on DTMANAGE and H4 predicts a negative effect of EMFUNRES on local decision-making support (LOCALDMS).

We test to what extent our data fits the theoretical model in Figure 1 by means of a path analysis (using LISREL 8.52). The results are summarized in Figure 2. Overall, we find a good fit ($p=.34$, $RMSEA=0.03$, $NNFI=.98$) and coefficient estimates largely consistent with our hypotheses. The emphasis on the functional responsibility of

controllers is positively associated both with role conflict and role ambiguity ($p=.04$ and $p=.00$, respectively) which are in turn positively associated with data management practices at the local level ($p=.00$ and $p=.04$). In addition, the emphasis on the functional responsibility negatively associated with local decision-making support ($p=.00$).

Importantly, we find no evidence that increasing the emphasis on the functional responsibility of controllers directly reduces data management practices at the local level, as predicted by H3. Instead, we find a significantly positive indirect effect of EMFUNRES on DTMANAGE via role conflict and role ambiguity ($p=.02$), which is consistent with H1a,b and H2a,b. The total effect (combining the direct and indirect effects) of EMFUNRES on DTMANAGE is positive but not significantly so ($p=.16$). Combined, our results suggest that increasing the emphasis on the functional responsibility of controllers does not necessarily alleviate data management issues. This is because a greater emphasis on the functional role goes together with role conflict and role ambiguity both of which may have dysfunctional consequences such as participation in data management at the local level. Our data highlights the significance of this indirect effect which may sometimes even dominate the direct effect.

--- Figure 2 about here ---

Additional Evidence and Robustness

The results presented above do not control for organizational and environmental differences to economize on the number of estimated coefficients (which is desirable given our sample size). However, we verify that controlling for various organizational and environmental characteristics does not affect our results. Specifically, we regress all five variables in our model on the control variables listed above. We use the error terms

from these regressions as alternative measures that filter out common effects of the control variables. The results are qualitatively similar.

Next, we address measurement error issues inherent in our data. In the analysis presented so far, we calculate our variables as averages of multiple observed items. Although this procedure reduces measurement error, it does not incorporate information about measurement error in estimation of the structural model. Structural equation modelling (SEM) is a technique that can estimate the measurement and structural part of our model simultaneously. Figure 3 presents SEM estimates of the structural part of our model. The downside of this approach is the large number of parameters that have to be estimated simultaneously, which is critical given our limited sample size. Thus, these results have to be interpreted with caution.

Overall, we find an acceptable fit of the SEM model ($p=.05$, $RMSEA=0.04$, $NNFI=.96$). The results are similar to those presented in Figure 2, except that the path from $ROLEAMBG$ to $DTMANAGE$ is no longer significant ($p=.19$). We do find that the emphasis on the functional responsibility of controllers has a significantly positive indirect effect on data management at the local level via role conflict and role ambiguity ($p=.03$). The total effect remains insignificantly greater than zero ($p=.14$). This suggests that our main conclusions are robust to alternative ways of dealing with measurement error issues.

--- Figure 3 about here ---

VI. DISCUSSION AND CONCLUSIONS

Business unit controllers have long been under pressure to participate more in local decision-making and to start acting as “business partners” of local managers (Siegel

and Sorensen 1999; Granlund and Lukka 1998). In the wake of the recent accounting scandals, companies have also been increasing the emphasis on the functional responsibility of controllers in an attempt to prevent corporate control failures. In this paper, we examine how controllers cope with their dual job demands and highlight that increasing the emphasis on the functional responsibility of controllers can have unintended detrimental consequences.

First, our survey evidence shows that a greater emphasis on the functional responsibility of controllers leads to higher levels of role conflict and role ambiguity. Our qualitative data shed some light on this finding. Controllers themselves view their responsibility to support local decision-making as the primary one. Their functional superiors often encourage this view and allow some leeway for controllers to favor their local responsibility because it can help engrain financial discipline in local business strategies. Increasing the emphasis on the functional responsibility, however, reduces this leeway and makes it more difficult for controllers to cope with their dual responsibilities and satisfy conflicting demands of both their functional superiors and local management (San Miguel and Govindarajan 1984; Sathe 1982).

Second, we find evidence that role conflict and role ambiguity can lead to dysfunctional behavior, such as to acceptance of data management practices at the local level. The link between role conflict, role ambiguity and dysfunctional behavior has been well established in the organizational behavior literature (Lau et al. 2003; Abramis 1994). Our study is the first to suggest that it may hamper controllers' effectiveness in dealing with data management practices.

Finally, consistent with prior research (Indjejikian and Matějka 2006), we find that the emphasis on the functional responsibility of controllers is negatively associated with local decision-making support. Thus, stressing controllers' functional ties fails to reduce data management, but also limits the extent to which controllers' knowledge adds value directly to the unit by improving local decision making.

The findings of our study are important for both research and practice. First, in line with other recent studies, it shows that psychological reasoning can extend and sometimes contradict strictly economics-based models of management accounting phenomena (Ittner et al. 2003; Towry 2003). In particular, we show that failing to account for the fact that controllers are not mechanistic information intermediaries but human agents whose behavior is influenced by the social setting of their work activities can lead to confounded conclusions about the effectiveness of organizational control systems. Future research is needed to further examine how controllers influence interactions between subordinate and superior managers in for example budgeting processes. In addition, future research could also examine how the design of the controller function depends on other control system attributes such as the delegation of decision making authority to BU managers and performance measure properties (Moers 2006; Abernethy et al. 2004).

Our study also helps organizations to make better informed decisions regarding the instruments that they put in place to ensure corporate control and integrity of financial reporting. It cautions that strengthening the functional ties of BU controllers does not guarantee more objective reporting or tighter internal control. Instead, our study suggests that organizations should concentrate on selecting individuals with the right

characteristics for positions where independence is considered crucial. These might be personality characteristics such as a tolerance for stress and ambiguity as well as variables that are indicative of individuals' educational or professional background (Hall et al. 2005; O'Sullivan 2004).

We acknowledge several limitations of our data. First, it should be noted that a larger sample would have allowed us to deal with measurement error issues more effectively. We also view the fact that we cannot assess psychometric properties of our proxy for data management practices at the local level as an important weakness. Despite its limitations, this study examines a topic that has received little attention in recent research and generates new insights about how controllers cope with their dual responsibilities.

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TABLE 1
Descriptive Statistics
(n=134)

	Mean	S.D.	Min.	Max.	Range	α
EMFUNRES	2.73	1.31	1.00	5.00	1–7	0.93
ROLECNFL	3.26	1.00	1.00	5.60	1–7	0.67
ROLEAMBG	2.72	0.86	1.00	6.00	1–7	0.75
DTMANAGE	1.95	0.57	1.00	3.80	1–5	na
LOCALDM	3.83	0.71	1.00	5.00	1–5	0.74
SIZE	5.84	1.75	1.10	10.40	na	na
TENURE	2.66	1.94	0.30	14.00	na	na
TASKANL	3.47	0.78	1.50	5.00	1–5	0.86
TASKVAR	3.18	0.92	1.00	5.00	1–5	0.92
INTERDP	3.01	1.05	1.00	5.00	1–5	na
ENUNCRT	3.00	0.54	2.00	4.60	1–5	na
DECENTRL	2.55	0.75	1.00	4.60	1–5	0.77
PUBLIC	0.70	0.46	0.00	1.00	na	na

As a measure of reliability, the last column reports Cronbach's alpha if the construct is unidimensional and consists of at least three items.

EMFUNRES—emphasis on the functional responsibility of controllers; ROLECNFL—role conflict; ROLEAMBG—role ambiguity; DTMANAGE—data management practices at the local level; LOCALDM—decision-making support of local management; SIZE—log of the number of employees; TENURE—number of years as a controller; TASKANL—task analyzability; TASKVAR—task variability; INTERDEP—interdependence of business units within a company; ENUNCRT—environmental uncertainty; DECENTRAL—decentralization; PUBLIC—equals one if company is publicly listed.

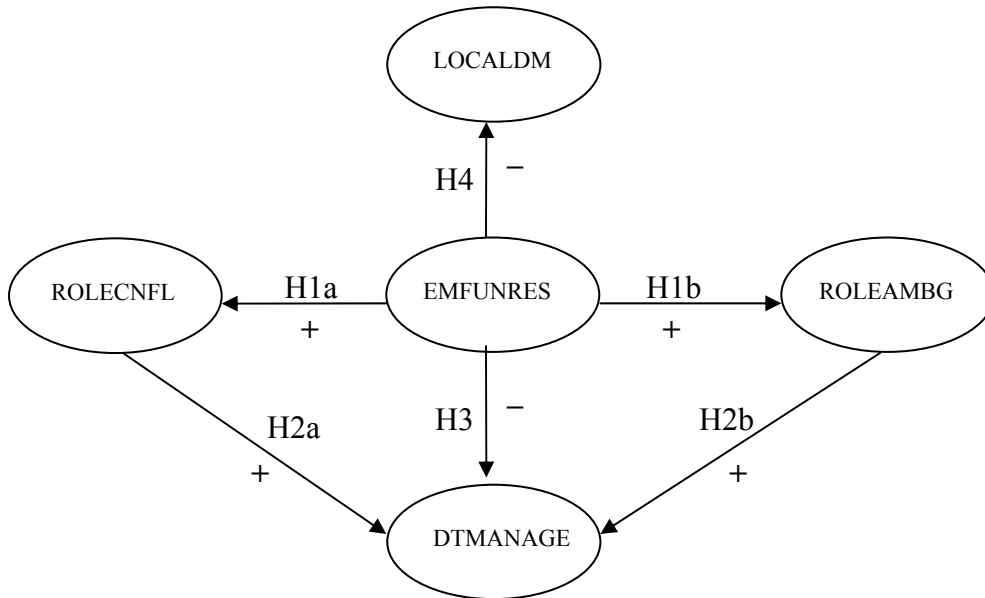
TABLE 2
Bivariate Associations
(n=134)

	EMFUNRES	LOCALDM	ROLECNFL	ROLEAMBG	DTMANAGE
EMFUNRES	1.71	-0.28	0.23	0.28	0.09
LOCALDM	-0.30**	0.51	0.03	-0.10	-0.02
ROLECNFL	0.17**	0.04	1.01	0.31	0.21
ROLEAMBG	0.25**	-0.16	0.36**	0.73	0.14
DTMANAGE	0.12	-0.05	0.36**	0.29**	0.33

** and * refer to significance at the 0.01 and 0.05 level (two-tailed), respectively. Pearson correlations are reported below the diagonal, variances and covariances are reported on and above the diagonal.

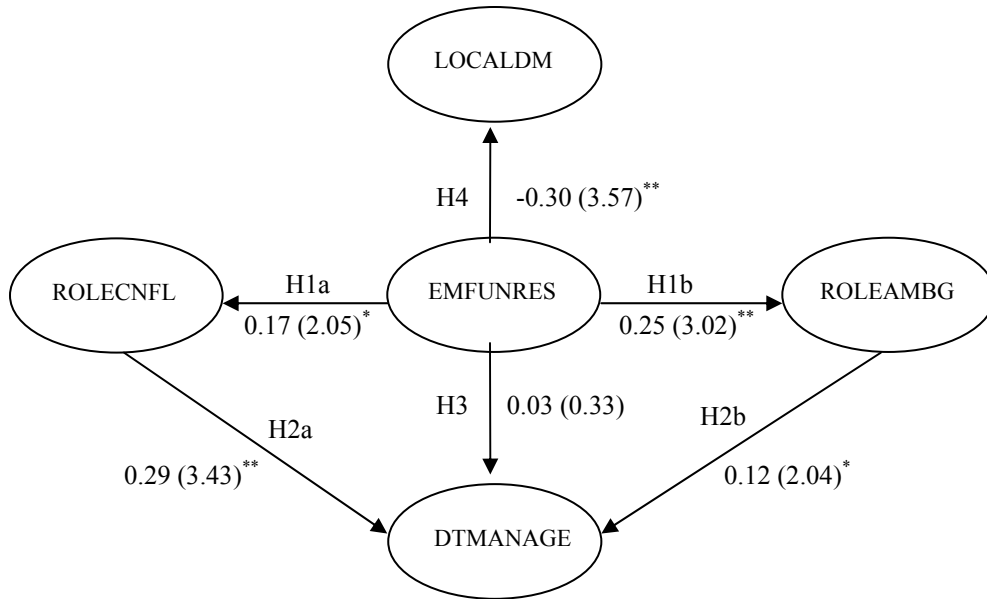
EMFUNRES—emphasis on the functional responsibility of controllers; LOCALDM—decision-making support of local management; ROLECNFL—role conflict; ROLEAMBG—role ambiguity; DTMANAGE—data management practices at the local level.

FIGURE 1
Theoretical Model



EMFUNRES—emphasis on the functional responsibility of controllers; LOCALDM—decision-making support of local management; ROLECNFL—role conflict; ROLEAMBG—role ambiguity; DTMANAGE—data management practices at the local level.

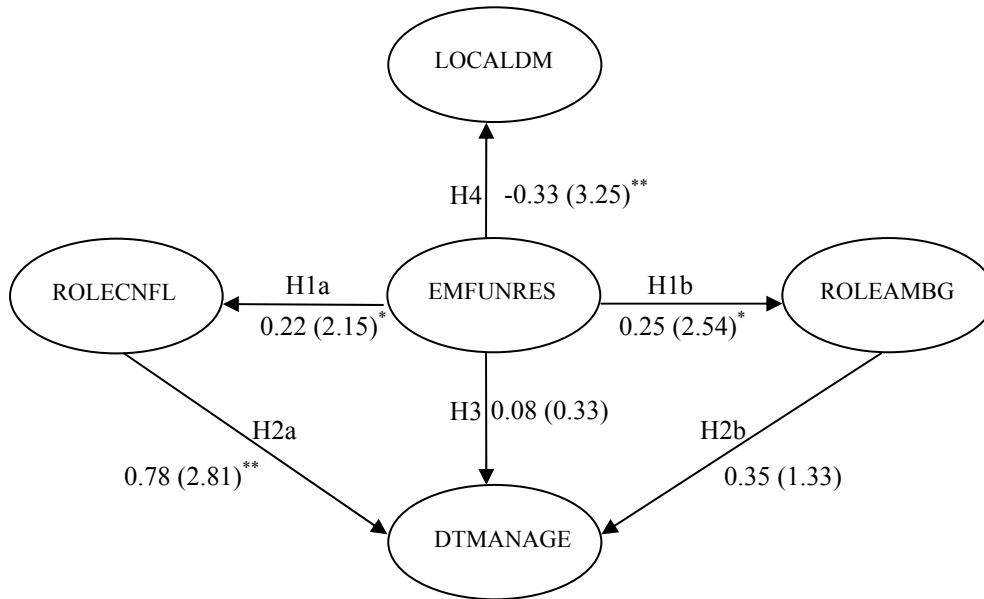
FIGURE 2
Structural Model and Parameter Estimates (Path Analysis)



Displayed are standardized coefficient values and their *t*-values in brackets. *** refer to significance at the 0.01 and 0.05 level (two-tailed), respectively. Goodness-of-fit statistics: $\chi^2=3.34$, d.f.=3, $p=0.34$, RMSEA=0.029, NNFI=0.98, $n=134$. The model allows for correlation between ROLECNFL and ROLEAMBG.

EMFUNRES—emphasis on the functional responsibility of controllers; LOCALDM—decision-making support of local management; ROLECNFL—role conflict; ROLEAMBG—role ambiguity; DTMANAGE—data management practices at the local level.

FIGURE 3
Structural Model and Parameter Estimates (SEM model)



Displayed are standardized coefficient values and their *t*-values in brackets. ** and * refer to significance at the 0.01 and 0.05 level (two-tailed), respectively. Parameters relating to the measurement model are omitted. Goodness-of-fit statistics: $\chi^2=194.2$, d.f.=164, $p=0.05$, RMSEA=0.037, NNFI=0.96, $n=134$. The model allows for correlation between ROLECNFL and ROLEAMBG.

Consistent with the discussion of measurement properties in section V, EMFUNRES, LOCALDM, ROLECNFL, and ROLEAMBG are modeled as latent variables reflected in 4, 5, 5, and 5 items, respectively. DTMANAGE is modeled as an observed variable (with values equal to the average of its 10 items) because it is not expected to be unidimensional.

EMFUNRES—emphasis on the functional responsibility of controllers; LOCALDM—decision-making support of local management; ROLECNFL—role conflict; ROLEAMBG—role ambiguity; DTMANAGE—data management practices at the local level.

Appendix —Field data

Data Collection

We collected our field data in seven large multinational companies headquartered in the Netherlands. The primary activities of these firms were food processing (one company), manufacturing and trading (four companies), and services (two companies); their sales ranged between €2–15 billion. We initially approached the CEO, CFO, or corporate controller in each of the companies and solicited endorsement of our study and referral to controllers at the corporate, business group, and business unit level. Over the course of the study, we interviewed 48 controllers or internal audit and consolidation managers. Table 3 provides some information about the distribution of interview hours across the different organizational levels and companies (the number of interviews at each level is reported in brackets)

TABLE 3
Interview Hours

	Corporate	Business Group	Business Unit	Total
Company 1	2.3 (2)	2.0 (2)	3.0 (2)	11.5 (8)
Company 2	3.8 (3)	2.0 (4)	2.0 (2)	11.0 (9)
Company 3	5.3 (4)	3.0 (5)	3.5 (3)	13.0 (10)
Company 4	4.5 (4)	1.0 (5)	1.0 (1)	6.5 (6)
Company 5	4.0 (4)	1.0 (4)	1.0 (1)	6.0 (6)
Company 6	2.8 (3)	1.0 (3)	1.3 (1)	4.0 (4)
Company 7	3.0 (3)	1.0 (3)	1.0 (1)	5.0 (5)
	25.5 (23)	11.0 (26)	12.8 (11)	57.0 (48)

Emphasizing the Functional Responsibility of BU Controllers

Below we present additional field evidence regarding organizational practices that increase or reduce the emphasis on the functional responsibility of BU controllers. Although it is not directly related to the development of our hypotheses, it is informative as a source of validation for our survey instrument measuring the emphasis on the functional responsibility of BU controllers.

Appointment of BU Controllers

Different companies and even different business groups within the same company can have different formal or informal policies regarding hiring, promotion, or firing of BU controllers. As illustrated in the following quotes, the corporate level can be very little or very closely involved:

The [BUs] take the initiative in appointing somebody and we test it once more, check it once more, and then approve. If I have some doubts and a [BU manager] says I want to have that one, then I say: I have doubts but I am going to stand behind you if that is the one you want to have. (business group controller, company 5)

When a [BU] general manager needs a new controller, he cannot appoint him without me, or without my consent. Depending on how big the [BU] is, I am very much or little involved. (business group controller, company 1)

If [business groups] have candidates they can put up, great, we will interview them. But sometimes they are not aggressive enough to bring in fresh talent as well. That's another reason why we need to influence. Come on, let's check the market because the candidates you are bringing are only one-company people, they have been here for nine, ten years, they have done nothing else. (corporate controller, company 6)

Management development policy for [accounting and finance] people is very centralized at [our company]. That means that controllers are appointed by a central committee. So, you stand in your own way if you as a controller misuse your position within the business group. That could eventually affect your career because your career is not in the hands of the business group manager but eventually in the hands of the central committee. The finance function plays quite

an important role in the central committee. So, it is important to be friends with them. (corporate controller, company 3)

The last quote also illustrates that centralization of the controller “development policy” is an important instrument to provide controllers with incentives to take their functional responsibility very seriously. It motivates career-conscious controllers to use their functional line more, to maintain an open communication channel with the business group or corporate CFO who can ultimately help them get promoted to a controller position in a larger BU or business group. Corporate managers can, as a part of controller development policies, encourage frequent controller rotation to reduce the risk that a close relationship with local management becomes counter-productive from a control point of view:

Rotation of people is one of the greatest control tools we have. They always know they must not leave any garbage behind and they also know that they must not use strange tricks because their replacement is going to see that and then it is over for them anyway. ... I think that controllers should be replaced every four to five years. (business group controller, company 5)

If I am not going to be here in 5 years, then I will not have the chance to build up certain ties with my [BU manager] which I would if I sat here together with the [BU manager] for 15 years. [In the latter case], the roles are so intertwined that the influence of the [headquarters] becomes more or less a joke. Whereas if you let the [BU controller] sit there for a maximum of 5 years, then the [headquarters] stay in touch with him... there is a healthy tension [between the BU manager and controller]. It means that the [BU manager] has somebody there who can continuously say—what are you doing now, is it consistent with ... If you do not [rotate], they become best friends. (BU controller A, company 5)

Communication with Functional Superiors

Influence of the functional superior extends beyond the appointment decision. There are regular formal meetings (business reviews) including both the manager and controller from each level during which the higher-level management can communicate the importance of certain corporate policies. More importantly, there is an informal

communication channel between controllers and their functional superiors (business group controllers or corporate CFOs) the intensity of which varies.

It is the informal communication between controllers at different levels that can bring about very different implementation of otherwise similar formal reporting requirements (e.g., timely, reliable reporting according to corporate manuals). For example, the corporate controller at company 4 did not miss any opportunity to emphasize that there will be no surprises of any kind. Not surprisingly, the message surfaced in several interviews in that company. As another example, a BU acquired by company 3 was formerly part of another company. Although the formal reporting rules were similar in both companies, the reporting culture changed considerably after the acquisition. According to the BU controller: “[C]ertain principles and agreements play a much more important role [after the acquisition]. There is a rule that you activate investments under such and such circumstances; you follow the rule regardless whether you meet your target at the end of the year or not.” When asked about what caused the change in the reporting culture, the BU controller replied:

I think that it is the influence of the business group controller. In part, it is also because of manuals and guidelines [of the new company] that you follow. There were manuals within [the old company] too, but they just were not as important as they are within [the new company]. Here, they are really emphasized and often referred to, then they become an important document. (BU controller B, company 3)

Higher-level management can also rely on the informal dialog along the functional line to obtain information that would otherwise be hard to obtain by means of formal reports:

If you ask [a BU] ‘how much more can you deliver?’, then ... the goal of the [BU manager] is naturally as little as possible. It would *never* work if the [business group controller] called me and I said we can do 5% more. It has to go via the hierarchical line. ... Yet, the [business group controller] has some feeling whether

it can be 5% or 2% more because of the regular contacts that we have. ... The discussion between the [business group controller and BU controller] is in this respect much less charged than the hierarchical discussion. The [BU manager] will always say no, no, there is only bad news, while the financial managers can talk about things in a more mature and open way. If the [business group controller] has a good contact with the BU, then he is going to get a much better picture of the BU. (BU controller A, company 5)

Corporate or business group managers can strengthen the informal dialog by appointing “their own person” as a controller at a lower level. In that sense, appointment of controllers and the intensity of the functional communication are closely related:

It was a conscious choice to send me to [this BU]; my predecessor was also from [the location of headquarters]. It is an informal company policy. In particular for a large company... it is common that after an acquisition the owner sends his financial man. I do not think it is really necessary, but I admit that the trust here [is important]—we have there somebody who we have known for so long who is going to let us know if strange things happen. On the other hand, the local management team ... also make use of it: ‘What do you think, how are *they* [in headquarters] going to react if we do this or that?’ Either I know it or I am going to lobby [the headquarters] in advance... I say [at the headquarters]: ‘watch out, in three weeks this is going to come’, ‘what do you think if we do this next year?’ ... In case of a distant business unit ... you need an additional channel of communication. (BU controller C, company 2).

Standardization of Systems and Reports

The scope of BU controllers’ functional responsibilities also varies depending on the amount of information requested by higher levels for corporate control purposes. At the one extreme, controllers may generate reports for their local management that are also used by higher-levels:

We have got several specialized BUs all of which have their own business drivers and performance indicators. It is quite difficult to consolidate. That is why we have said: Let everybody simply report in their own way, the way they think is most valuable to them, and if they think they have enough information than it must be the case that a higher level also has enough information. (business group controller, company 7)

At the other extreme, most of BU controllers’ time may be spent on corporate reporting:

I used to work for [a company] where ... the marketing and controlling departments did not have a chance to work for the local [BU]. We were completely dependent on a large amount of very detailed questions that came from the headquarters and we had to answer those. (BU controller A, company 5)

In addition, extensive corporate reporting requirements typically go hand-in-hand with a greater amount of standardization in internal accounting manuals but also in the underlying business processes. The following quote illustrates that the amount of standardization imposed by higher-levels varies across BUs and changes over time:

We have at the business group level a specific accounting manual which goes much, *much* further than the corporate manual. [We want to achieve] worldwide standardization in accounting so that we speak a common language—if we benchmark costs per ton or something else per ton across our plants—so that we speak about the same costs. ... This is a big discussion within [the company] at this moment—standardization versus individual needs. As usual, it is a pendulum. Standardization is hard to find in [the company] at this moment. Everybody has their own SAP systems, implemented in their own way, everybody does it in a different way. The pendulum swings the other way now. The truth must be somewhere in between. But at the moment the pressure is on standardization, standardization. (BU controller C, company 3)