

# **The Entrepreneurial Gap: How Managers Adjust Span of Accountability and Span of Control to Implement Business Strategy**

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The Entrepreneurial Gap: How Managers Adjust Span of Accountability  
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Abstract

This study focuses on the relationship between business strategy, organization structure, and diagnostic control systems. The project analyzes data from 75 field studies to illustrate how managers adjust span of accountability and span of control to motivate different levels of innovation and entrepreneurial behavior. Six propositions are derived inductively about when, why, and how managers make these choices.

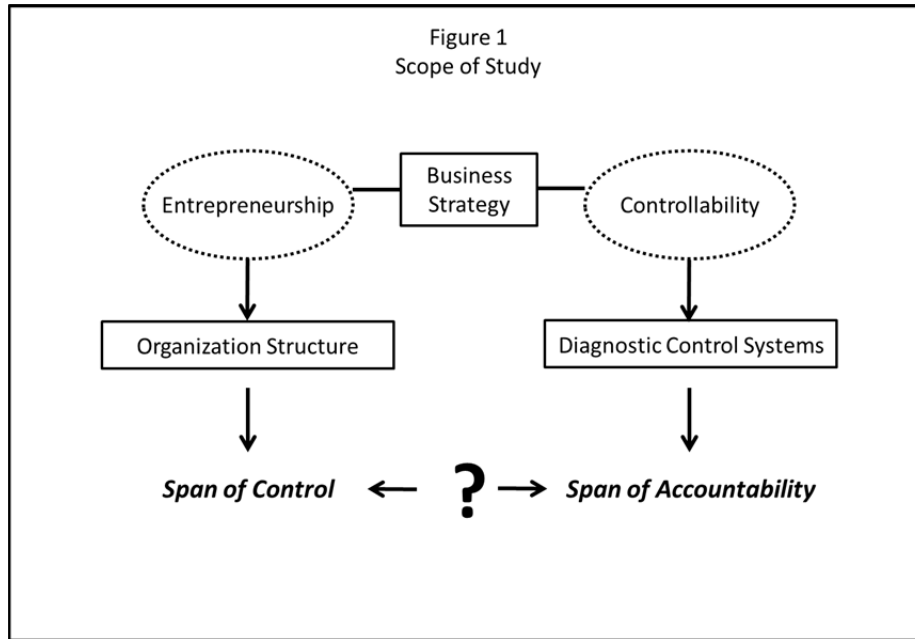
Keywords: business strategy, strategy implementation, control systems, responsibility accounting, span of accountability, organization structure, organization design, authority, span of control, controllability, entrepreneurial gap, entrepreneurship, stimulating innovation, competition.

The management accounting literature of the past twenty years is replete with studies of budgeting systems, balanced scorecards, performance measures, and contract-based incentives. But, curiously, relatively little attention has been devoted to the organization structure in which these systems exist. Existing accounting theory has little to say, for example, on how the design of performance measures might differ if a business is organized by function, by region, or by product or customer group.

This has not always been the case. In previous eras, organization design was central to management accounting theory. For example, as businesses became more decentralized in the 1950s and 60s, accounting researchers developed theories that focused on the performance measurement implications of organizing business units as cost centers, profit centers, and investment centers. Related work provided insight into the economic and behavioral effects of transfer pricing as goods and services flowed between these different types of organizational units (see, for example, Anthony, Deardon, and Vancil, 1965; Solomons, 1965).

In this study, organization design is reintroduced as a critical variable in understanding management control systems in the context of intensifying global competition. **Figure 1** illustrates the scope of the project. Building on theories of entrepreneurship and controllability, the research explores the relationships between three variables: business strategy, organization structure, and diagnostic control systems. The focus of the empirical analysis, however, is primarily on the interaction between systems and structure—captured through the theoretical constructs of span of accountability and span of control.

The next section describes the theoretical underpinnings of the analysis.



### *Corporate Entrepreneurship and Organization Design*

The need for organizations to innovate and explore new opportunities while, at the same time, executing their current strategies is a central and longstanding theme in the literature of organizations. As March (1991) acknowledges, interest in understanding the tension “between the exploration of new possibilities and the exploitation of old certainties” stretches back at least to Schumpeter (1934).

Organization researchers have attempted to reconcile these competing demands through various approaches to organization design. Building on Lawrence and Lorsch’s (1967) distinction between differentiation and integration, for example, a variety of studies have proposed structural designs that can either foster the creation of new opportunities or the exploitation of existing resources to support different competitive strategies (Gupta et al., 2006; Smith and Tushman, 2005; Benner and Tushman, 2003; and Rivken and Siggelkow, 2003). Duncan (1976) and Tushman and O’Reilly (2004, 1996) exemplify this approach when they argue that organizations should strive to be ambidextrous: to build capabilities to manage these competing imperatives through mechanisms such as cross-functional teams and the linking of independent units with

overarching management hierarchies. Other prescriptions to balance this tension include enhancing organizational flexibility (e.g., Adler et al., 1999; Volberda, 1996) and developing knowledge and social networks (e.g., Liebeskind et al., 1996).

These various approaches seek to create organizational *contexts* that are conducive for creativity in goal-seeking organizations. But an additional ingredient is always necessary: *individuals* within organizations who are willing to take risks and innovate—to become what Burgelman (1983) calls “corporate entrepreneurs” or Pinchot (1985) terms “intrapreneurs.” The entrepreneurial actions of such individuals, they argue, provides the dynamic counterbalance to the standards and routines that promote stability, but often limit novelty and experimentation.

In describing corporate entrepreneurs, Burgelman (1983) portrays organizations as “opportunity structures” within which managers can innovate to expand their current businesses or diversify through new initiatives. But entrepreneurs typically face resource constraints. Accordingly, Stevenson and Jarillo (1990) define entrepreneurship as “the process by which individuals—either on their own or inside organizations—pursue opportunity without regard to the resources they currently control.”<sup>1</sup> On other words, entrepreneurs are people who are motivated to pursue business goals even if they don’t have adequate resources: they may, for example, try to find ways to launch a new product when they do not have the necessary financing, production, or distribution resources. Stopford and Baden-Fuller (1994) refer to this entrepreneurial trait as “aspirations beyond current capabilities.”

Notwithstanding the considerable body of literature on entrepreneurship (see, for example, *Strategic Entrepreneurship Journal*), little has been written on how systems and structures can be utilized to motivate individuals in complex business enterprises to take on the task (and risk) of attempting to transform opportunities into profitable initiatives—

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<sup>1</sup> Similar definitions have been proposed by others. For example, Sharma and Chrisman (1999) define entrepreneurship as “acts of organizational creation, renewal, or innovation that occur within or outside an existing organization.”

especially when faced with the constraint of insufficient resources. Raisch et al (2009), for example, suggest that further research is needed to understand how organizational context affects an individual's propensity to engage in exploration and innovation instead of the execution of current strategies. Shane and Venkataraman (2000) question—and call for more research to explore—how opportunity cost, difficulty in acquiring resources, and differences in perceptions and optimism affect the propensity for individuals to act as corporate entrepreneurs.

Minkes and Foxall (1980) framed the basic question that remains unanswered today:

The traditional entrepreneur was conceived as an individual who by dynamic force and flair recognized, seized or even invented opportunities: these were essentially market opportunities. In the modern business corporation, single individuals still exert power of leadership: their arrival and influence are often critical constituents at points of change. But ... the rise of large and complex organizations with managerial discretions at various levels means that the entrepreneurial role is dispersed among individuals and departments. ... Empirical research needs to concentrate on the ways in which, on the one hand, their influence and authority are exerted: on the other, how, in a framework of diffused entrepreneurship, the very existence of organization governs the formation and implementation of strategy.

This research seeks to provide a partial answer to this question.

### *Controllability and Diagnostic Control Systems*

Management control systems are traditionally seen as tools for implementing business strategies. This perspective is evident in the first published definition of management control as, "the process by which managers assure that resources are obtained and used effectively and efficiently in the accomplishment of the organization's objectives" (Anthony, 1965: p. 17). Newer incarnations of management control systems, such as the balanced scorecard, adopt a similar perspective. Performance management

systems are top-down tools for deploying resources in the execution of top management's intended goals, plans, and strategies (Kaplan and Norton, 1996).

But the use of control systems is not limited to the implementation of existing strategies. They can also be used to motivate exploration, innovation, and adaptation. In earlier work, for example, I illustrate how top managers use control systems *interactively* to focus organizational attention on strategic uncertainties, leading to the emergence of new strategies over time (Simons, 1990, 1991, 1994). Accordingly, I define management control systems more broadly as the formal, information-based routines and procedures that managers use to maintain or alter patterns in organizational activities (Simons, 1995: 5).

Regardless of perspective, the research on management control systems to date has not paid much attention to the organizational context or design within which these systems operate. Research has not yet addressed, for example, whether the structure of an organization—and the different ways that managers allocate resources to employees and units as a result of that structure—makes a difference in the ability of managers to use control systems as tools to stimulate innovation and entrepreneurial activity.

One of the few agreed-upon organization design principles in the accounting literature is the controllability principle: the longstanding precept that authority over resources should equal, or align with, responsibility for performance (Arrow, 1974: 284; Merchant, 1985: 21). Historians trace the development of the controllability principle back to the founding of American railroads when business managers confronted, for the first time, the problem of managing people who worked at considerable distance from central executive offices. Charles E. Perkins, president of the Chicago, Burlington, and Quincy Railroad, wrote in 1885, for example, “It is obvious that to hold a manager responsible for results it is necessary to give him pretty full power over the property which he must use to produce those results.” (Chandler, McCraw, and Tedlow, 1995: chapter 2, p. 36).

The controllability principle has been the subject of a wide array of research using analytic models (Holmström 1979; Antle and Demski, 1988; Demski, 1994; Lambert,

2001; and Datar, Kulp, and Lambert, 2001) and case studies and surveys (Merchant 1987, 1989). The controllability principle is also the underpinning of the accounting-based design concepts of revenue centers, cost centers, and profit centers (Hawkins and Cohen, 2004).

Of course, the amount of resources delegated to an individual, and the performance measures for which he or she is accountable, will vary depending on that individual's position in the organizational hierarchy. A CEO, for example, controls a wide swath of resources and is held accountable for broad performance measures. A manufacturing supervisor, in contrast, controls a much narrower range of resources and, accordingly, is accountable for measures that focus only on the performance of those resources.

This perspective is confirmed by Bowens and van Lent (2007) who find that the use of broad accounting return measures (e.g., ROA) increases with greater managerial authority. At lower levels of an organization, managers are more likely to be accountable for disaggregated financial measures such as revenues and expenses. Several studies have also found that the relationship between resource delegation and performance measures is affected by the degree of interdependence between a business's divisions, with higher interdependency leading to more aggregated measures (Abernethy, Bouwens, and van Lent, 2001; Bushman, Indjejikian, and Smith, 1995).

To explore the relationship between strategy, structure, and systems, this study uses two concepts—span of control and span of accountability—to focus on (1) the resources allocated through organization structure and (2) the accountability derived from diagnostic control systems.

*Span of control* is a function of the formal decision rights embedded in an organization's structure: it is typically defined as the number of people who report to a boss (Perrow, 1986: 30-33; Mintzberg, 1979: 134-35). Thus, span of control is usually reported as a number (e.g., 8 or 12) that can be determined from a company's organization chart. For this study, I adopt a broader definition: *span of control represents*

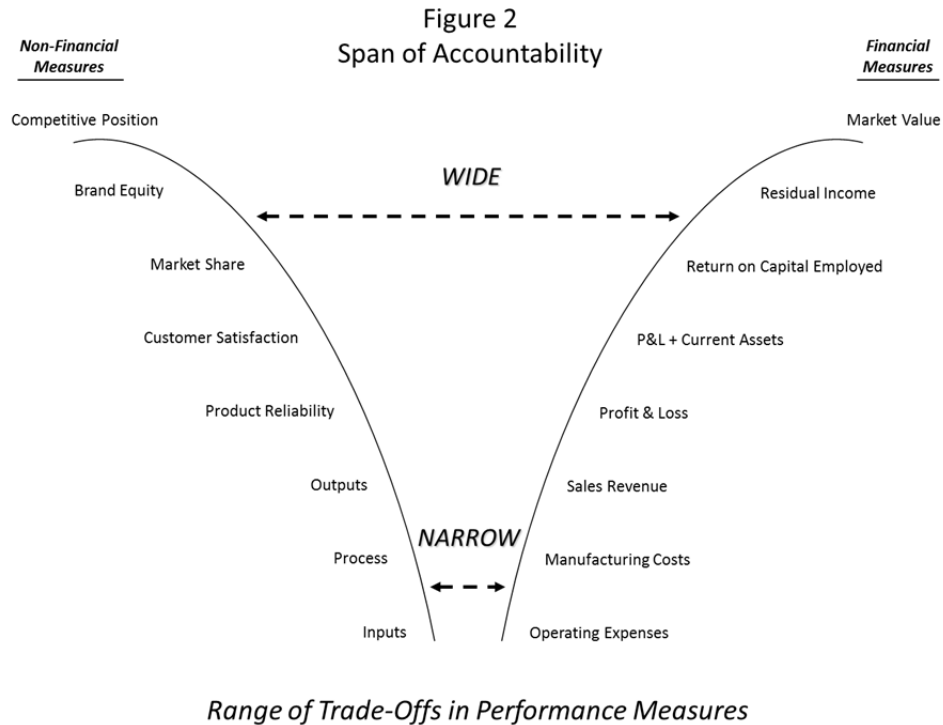


*the total resources under a manager's direct control* (Simons 2005: p. 39). Under this expanded definition, span of control includes not only people, but also balance sheet assets and intangible assets such as information infrastructure under a manager's direct control. Thus, for any individual job, span of control can be either wide, indicating control of a wide range of resources, or narrow, indicating that a manager has direct control of relatively few resources.

*Span of accountability*, in contrast, *represents the range of tradeoffs inherent in the measure(s) for which a manager is accountable* (Simons, 2005: pp. 88-89). Again, this can range from narrow to wide. To illustrate this concept, **Figure 2** shows a hierarchy of span of accountability for financial and non-financial measures. At the bottom of the funnel, measures such as headcount and line-item expense budgets allow few tradeoffs. Managers accountable for these measures have relatively few degrees of freedom and, therefore, a narrow span of accountability. The measures at the top of the funnel, such as competitive position and market value, are much broader allowing many tradeoffs and creating a wide span of accountability.<sup>2</sup>

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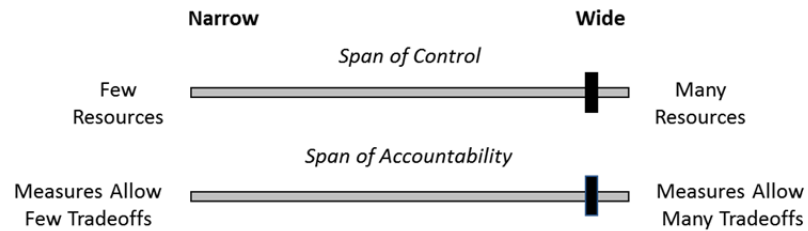
<sup>2</sup> The number of measures for which a manager is accountable can also affect span of accountability. Span of accountability is widest when a manager is accountable for a small number of broad measures at the top of the funnel, such as ROA or market share, thereby allowing maximum freedom to make wide-ranging tradeoffs to achieve measured results. Span of accountability narrows as managers are held accountable for an increasing number of measures—especially those lower in the funnel—as each additional measure on a scorecard constrains the ability to make tradeoffs.



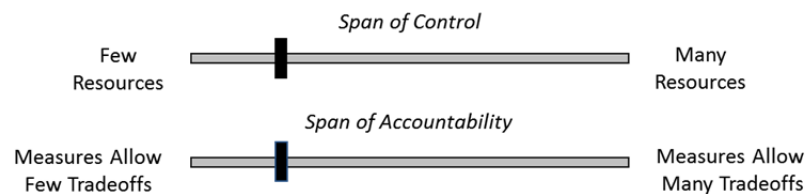
**Figure 3** illustrates, using two sliders, how span of accountability can be expected to align with span of control under the controllability principle. For a CEO with wide span of control (responsibility for all the firm's resources) and wide span of accountability (accountability for a small number of broad measures such as stock price and competitive position), both sliders are pushed to the right. A manufacturing supervisor, in contrast, would have both sliders pushed to the left reflecting a narrow span of control (relatively few resources under his or her control) and narrow span of accountability (detailed performance measures that focus on operating efficiency and narrowly-defined cost management).

Figure 3  
Spans of Control and Accountability for Different Jobs

## CEO



## Manufacturing Supervisor



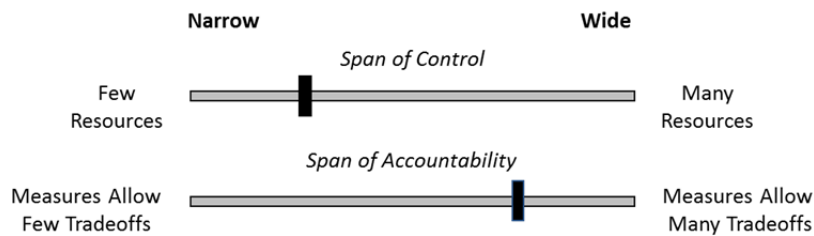
In practice, of course, these two variables may not align so neatly. Instead, managers may find themselves accountable for measures that are significantly wider (or narrower) than their span of control: e.g., a cost-center manager may be accountable for profit—a much wider measure of performance. Vancil (1979) describes such a situation based on his questionnaire study of 291 firms:

Corporate managers use the calculation of profit to influence the behavior of each profit center manager, and the message they are sending to him in deciding to assign costs of shared resources is that the scope of his initiative should not be restricted solely to the resources for which he has functional authority. . . . his responsibility includes trying to influence the management of those shared resources . . . Assigning, or failing to assign, cost responsibility for shared resources tells a profit center manager what to worry about; the method of cost assignment, in effect, tells him how much to worry. (1979: 105, 118)

Such a situation is illustrated in **Figure 4**. In this case, the sliders do not align. Span of control for the cost center manager is narrow, with its slider is

pushed to the left, while span of accountability—based on overall business profit—is wider with its slider pushed to the right.

Figure 4  
The Entrepreneurial Gap



What are the consequences of the gap that is created when individuals are expected to achieve broad results such as profit, but are not given control of the necessary resources? One possible outcome—predicted in the behavioral accounting literature—is employee frustration and turnover. Using field research, surveys, and laboratory experiments, over forty research studies have documented the potential for dysfunction if the controllability principle is violated (see Fischer, 2010: 51-54 for a catalogue and summary).

However, there is an alternative possibility suggested by the earlier-stated definition of entrepreneurs as people who pursue opportunities without regard to the resources they currently control. Building on this definition (and Vancil's observation), managers may, in some circumstances, wish to purposefully set span of accountability wider than span of control to motivate individual initiative (Simons, 2005: 94-95). When faced with accountability for broad measures (e.g., profit or customer satisfaction) and a shortage of resources, subordinates—at least those who are so inclined—will respond by working to understand customer needs, building interpersonal networks to gain access to needed resources, and innovating to satisfy customers.

This interpretation can be seen in case-based findings of Merchant (1987) who concluded that organizations may benefit by relaxing the controllability principle to

encourage managers to pay attention to variables outside their control. In a similar vein, Frow, Marginson, and Ogden (2005) conclude, based on an in-depth case study, that accountability without control can prod managers to influence others in situations of interdependence. Burkert, Fischer, and Hoos (2013) also find, based on a survey of 432 managers, that holding managers accountable for measures that are broader than the resources they control promotes flexible, proactive work behavior in complex, dynamic business settings.

Following the spirit of these findings, I label the gap illustrated in Figure 3—where span of accountability is wider than span of control—as the *entrepreneurial gap*. Moreover, I hypothesize that such purposeful misalignment of resources and accountability to promote entrepreneurial activity is a potentially critical design choice: a choice that may be increasingly essential to success in today’s competitive business environments.

### **Stage One: In-Depth Field Study Data from Three Companies**

To investigate the relationship between span of accountability and span of control in today’s highly competitive global markets, this study was undertaken in two stages. The first stage collected and analyzed field data from three companies in different industries: a U.S.-based software company (Company A), a European consumer and industrial products company (Company B), and a U.S.-based automotive service provider (Company C).<sup>3</sup>

The purpose of this exploratory work was to gain an initial understanding of the choices that managers make in designing the interaction between span of accountability and span of control. In this stage of the research, field visits were made by the author and a second faculty member and/or a qualified research associate to each of the three firms. In each firm, interviews were conducted with the CEO, CFO, business heads, and a

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<sup>3</sup> These companies were selected based on opportunities to gain access to top management.

variety of regional managers. Proprietary company documents were reviewed. Follow-up interviews were conducted by telephone and email queries.

Interviews with managers, document reviews, and data collection were focused primarily on understanding the variables outlined in Figure 1: business strategy or changes in strategy; organization design with special attention on span of control; and diagnostic measurement systems with special attention on span of accountability. At the conclusion of each field study, the analysis was shared with company managers to verify the accuracy of interpretation.

As I describe below, executives at all three of these companies set span of accountability wider than span of control by holding managers accountable for resources they did not control.

#### Company A:

Company A specialized in customer relationship management (CRM) software. At the time of the study, Company A employed 8,000 people and generated \$2 billion in annual revenue.

Company A's strategy was to build long-term relationships with large, global customers through product excellence and dedicated customer service. This objective was complicated, however, by Company A's decision to focus its resources solely on software development. Product installation and training—both critical to ultimate customer satisfaction—was subcontracted to over 700 third-party vendors who worked with Company A to implement new systems, supply supporting context, and train users.

Company A did not have a published organization chart. Instead, employees described their organization design as a series of concentric rings organized around the customer. The first ring represented the regional sales function which managed the relationship with the customer. The second ring, product marketing, contained technical engineering groups for each major product category (horizontal) and specialized industry groups that customized products to suit the needs of different customers

(verticals). The third ring contained corporate support functions and the external alliance partners (i.e., independent firms that provided independent content, training, etc.) segregated by size and importance.

This mindset—putting customers in the center of the organization—had a pronounced effect on behavior. As the vice president of finance stated, “You can put up a red flag and say, ‘I have a customer satisfaction problem.’ Everyone drops everything to help you. Our goal of alignment around the customer makes it OK to cross boundaries.”

Seventy percent of Company A’s revenue stream came from repeat orders from existing customers. As a result, Company A’s CEO underscored the importance of customer satisfaction as follows:

We make 100% customer satisfaction our overriding priority. Our customers’ success is the sole measure of our own success. And we will do whatever it takes to ensure that our customers succeed in their deployment and use of our eBusiness applications. Doing whatever it takes means that when faced with conflicting priorities, we place our customers’ interests above everything else. No consideration ever takes precedence over ensuring that our customers remain successful. Not new product development. Not marketing initiatives. Not new business. Satisfying our existing customers is our first priority.

Company A’s senior management believed that when something was important you measured it. Accordingly, managers tracked financial measures such as revenue, account profit, cash flow, and days of sales outstanding. But they considered customer satisfaction to be their most important measure. As a senior executive explained, “Measurement has played an invaluable role in this entire fabric that we have woven around the customer satisfaction issue. Ongoing measurement of customer satisfaction enables us to see where we need to improve.”

For people involved in product development and delivery, bonus payments were contingent on achieving 100% customer satisfaction scores. Moreover, payments were withheld until installation was complete and the customer was totally satisfied. Compensation of other people throughout the organization was also tied to customer-related measures and designed to be increasingly variable for employees working closest to customers.

Throughout Company A, it was clear that executives routinely set span of accountability greater than span of control. Managers throughout this complex business were accountable and rewarded for performance on broad measures such as customer satisfaction, revenue, and account profit. Yet, success against these measures invariably involved access to resources that were not under any one individual's control. One business unit manager's description of this design choice was typical of the situation encountered throughout the business:

To do my day-to-day job, I depend on sales, sales consulting, competency groups, alliances, technical support, corporate marketing, field marketing, and integrated marketing communications. None of these functions reports to me and most do not even report to my group.

Through such design decisions and other actions, the company became the leader in its markets, growing faster than any other firm in the history of its industry. Six years after its founding, the company had a market value of \$6 billion.

#### Company B:

Field data was also collected at Company B, a consumer-products company headquartered in Europe. As in Company A, interviews were conducted with the CEO, CFO, heads of major business units, and a variety of operating managers and staff. Confidential company documents were provided and reviewed as part of the study.

Company B employed 45,000 employees and generated €13 billion in sales revenue. Although Company B had long been considered successful, many analysts and managers believed that complacency had set in and the company was underperforming its potential. As one senior executive stated, “[Company A] is like a happy underperformer, always number two or number three, but we didn't care.”

To remedy this complacency, the board of directors appointed a new CEO, an outsider with experience in the computer technology industry. Soon after taking charge, the new CEO vowed to transform the company into a leaner, more performance-driven and market-focused company. As he stated, “Staying where we are is no longer an



option. We either move up or move down: we either become relevant or we will be made irrelevant.”

The new CEO galvanized the business to action by publicly announcing a commitment that many thought was unattainable: increasing pre-tax profit margin from 10% to 14% within four years. To effect such a dramatic improvement in returns, the CEO implemented a variety of initiatives including plant closings, divestitures of underperforming brands, fifteen percent reduction in headcount, and consolidating administrative functions into shared-service centers in low-cost countries.

These actions had the effect of drastically narrowing span of control for most business managers. A company executive described the effects, “Before the reorganization, local general managers (GMs) had direct control of key functions in their business units such as controlling and supply chain management. Now, with the implementation of global standards and policies, many of these functions have been centralized. The GMs are still responsible for business results and operations, but they have drastically fewer resources under their direct control ... often only the sales and marketing functions report directly to them. This is a big change and big challenge for local management.”

In addition to these structural changes, the CEO of Company B made fundamental changes to beliefs systems and diagnostic control systems. First, he changed belief systems by rewriting the company’s longstanding values. The old values comprised a list of ten attributes that played no role in decision making or day-to-day management. They included goals (“we aspire to excellence in quality”), work principles (we communicate openly and actively), and history (“We preserve the tradition of an open family company”). He shortened the values to five principles, with the first being the most important: “We put CUSTOMERS at the center of what we do.” [caps in original]

The second change focused on diagnostic performance measures. Previously, managers were accountable for balanced scorecards containing 20 or more measures. He eliminated the scorecards and reduced the number of measures that each manager was accountable for—typically just three measures. He also insisted that at least one of these

measures was customer-focused. As he stated, “The balanced scorecards had too many measures. They always gave someone an excuse ... somewhere to hide. I want clear accountability for a small number of customer-focused measures. As I tell everyone: no more excuses. The target is the target.”

To focus attention on these changes, the new CEO also instituted a new performance evaluation system that required all executives to grade each of their subordinates on two scales: performance and potential. A forced ranking system was then applied that required sorting individuals into four categories: top (10%), strong (60%), moderate (25%), and low (5%).

As one of the business heads who reported to the CEO stated, “When it comes time for evaluation, we now focus on proof: the first thing we talk about is quantity and quality of output. This is a big change from when we used to assess people on activities and efforts, but not results. .... Next, we focus on the individual’s ability to be customer-oriented in their work.”

Under the new CEO, the resources made available to managers to achieve their goals were reduced: facilities were closed, headcount was reduced, and shared services were centralized. At the same time, customer-focused accountability increased across the board. Thus, span of accountability exceeded span of control throughout Company B (“the tension is now palpable,” said one business unit manager). Managers who were unable or unwilling to commit to the new circumstances—an expectation to do more with less and become more customer-focused—were replaced.

Over the next several years, the company prospered. It generated €10 billion in additional revenue with 13,000 fewer employees, innovated in new products and new markets, increased its EBIT margin from 10% to 14%, and saw its stock price increase fourfold.

### Company C:

Company C was the third company for which field data was collected for this study. Company C was privately owned, employed 3,000 people, and generated \$500 million in revenue. It operated call centers that dispatched roadside assistance services to stranded motorists on behalf of OEM automobile manufacturer clients. To deliver this service for its OEM clients, the company contracted with 25,000 independent service providers (e.g., towing operators) around the country. As the founder stated, “We are B-to-B-to-C company. We talk more to drivers of Toyota cars than Toyota does.”

For the first twenty-five years of its existence, the company had been run by its founder—a charismatic, hands-on leader. As the market matured and competition intensified, a professional manager from GE was hired to take over the day-to-day management of the business. As the founder stated, “We were a solid company with great relationships and strong integrity, but a little old fashioned. I knew that to stay differentiated from the competition, we had to reinvest, come up with new ideas, and hire the brightest people we could find. Until then I had been a benevolent dictator, but a dictator nonetheless.”

When the new CEO took over, he inherited a company that had been organized by function since its founding. As he remembered during interviews, “It was a very flat organization with a lot of direct reports. But this slowed decisions making—there were too many cooks in the kitchen—and we had no visibility into market opportunities.”

After gaining an understanding of the business, the new CEO made two major structural changes. First, he reorganized the business into separate client-facing business units (automotive, insurance, and diversified) and service delivery units (contact centers, network management, and technology), each with its own vice president. On the client side, senior managers hoped that the new structure would drive more market-focused innovation. On the service delivery side, they hoped to give more voice to the managers of major cost drivers and customer satisfaction. Second, he combined call center operations and service provider network management into one unit under a chief service

officer. This change was intended to improve internal coordination and boost motorist satisfaction scores and reduce costs.

To make these design changes work, the new CEO realized that he had to upgrade the company's internal financial capabilities. Accordingly, he hired a chief financial officer (the company had previously operated with only a controller) and made her responsible for installing a new performance reporting system that could provide P&Ls by client and vertical market unit, and provide fine-grained cost and utilization information relating to service delivery costs and capacity utilization.

Performance measures were also changed to focus on what the new CEO called "the greater good." Before the reorganization, managers had been held accountable for the resources they controlled: call center managers had been evaluated primarily on cost-per-dispatch, and the service provider network group had been evaluated on cost-per-claim. Now, both groups were evaluated on overall cost and overall customer satisfaction.

The new CEO took this change one step further by linking compensation to customer satisfaction scores for everyone in the business. Now, every employee—from frontline contact center representatives to division presidents—had a portion of their bonus determined by customer satisfaction scores.

The result of these changes was to widen the entrepreneurial gap. Under the original functional structure, each manager was responsible for revenues or costs under his or her direct control with little accountability for customer satisfaction or other broad measures. With the new organizational structure, span of accountability (now focusing on customer satisfaction scores and overall costs) was wider than span of control for all key managers in the business (no manager controlled all aspects of the service chain, and none controlled the independent service providers who were the main drivers of customer satisfaction).

The results of these changes were impressive: over two years, a stream of market innovations and new products attracted several new clients; customer satisfaction scores

increased from 69% to 91%; more than \$40 million in costs were removed from the business.

### Initial Findings

Company A, B, and C were different in almost every way: different industries, different continents, different sizes, different histories. Company A was notable for its obsessive focus on customers and customer satisfaction. Company B was in the midst of a turnaround driven by a new CEO who desired to make the company more performance and market-oriented. Company C, which was privately-held, hired a new professional manager to introduce techniques that could achieve better internal coordination and stimulate market growth.

In spite of these differences, managers at all three companies did the same thing: they used systems and structures to make individual managers accountable for performance measures that exceeded their span of control. They created an “entrepreneurial gap.” Was the decision to widen span of accountability relative to span of control a function of the specific strategies of these three firms? It is difficult to answer this question with only three observations.

### **Stage Two: Field Study Data from 72 Additional Companies**

Accordingly, the second stage of this research was designed to analyze contextual field data from a larger sample of companies in an attempt to generate sufficient variety to identify predictable patterns in accountability and control choices.

To this end, teams of researchers (second-year MBA students) collected targeted field data on the reported relationship between span of accountability and

span of control from an additional 72 different organizations.<sup>4</sup> These organizations were not selected randomly. Instead, they were chosen by students based on their ability to obtain interviews with managers and access to data—often as a result of relationships formed in prior work experience before coming to business school.

Before embarking on data collection, student researchers—all of whom had experience working in business organizations—completed a twenty-five session course that used readings, case studies, and exercises to help them understand and apply the concepts of span of accountability and span of control to situations they would encounter. However, student researchers were not provided with, or instructed to look for, any theoretical ideals or preconceived notions about what should, or should not, comprise good practices.

For each study, researchers interviewed managers and collected company data that allowed them to determine the relationship between span of control (“What resources do specific managers control? Who reports to them? What other resources do they have control over?”) and span of accountability (“What measures are these managers accountable for? What tradeoffs can they make to affect these measures?”). In addition, data was also collected on the business’s strategy and key design variables including nature of the task and structural configuration adopted by the firm.

The unit of analysis varied across the studies: in some cases, the focus was on senior managers; in other cases, the focus was on lower-level production or front-line workers. But in every instance, the field study detailed (1) the goals or strategy of the business unit, (2) the resources that individuals controlled directly, and (3) the nature of the measures for which individuals were accountable. The research project focused on categorizing the choices that managers made and documenting the business context within which these choices were made. From

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<sup>4</sup> This work was completed as part of the course requirement for the second-year Harvard MBA seminar, “Designing Organizations for Performance.”

this information, research teams were able to determine quite easily whether span of control was greater than, equal to, or less than span of accountability for each group studied.

For example, it was determined that for brand managers in a consumer packaged goods company, span of accountability was wider than span of control. These brand managers were responsible for building consumer loyalty and, accordingly, were held accountable for wide performance measures including brand profit, brand equity (revenue premium versus private label), and market share. But they controlled few resources—primarily the associate brand managers who reported to them. In this case, their span of accountability (range of tradeoffs in performance measures) was determined to be greater than their span of control (command-and-control decision rights).

By contrast, managers of a call center had span of accountability that equaled, or aligned with, their span of control. The resources they controlled included staffing levels, training, schedule management, and maintenance. Their performance measures reflected accountability for these same resources: staff utilization measures, call handling efficiency statistics, and detailed line-item operating expenses.

In analyzing the data gathered by the student researchers, four steps were followed to improve reliability and validity and to isolate the relationships reported below. First, for each of the 72 field studies, the analysis and conclusions regarding span of control and span of accountability were reviewed and verified by the author, and then independently checked and confirmed by a qualified full-time research associate. Next, the business units or organizations analyzed in the field studies were sorted into three groups according to the reported relationship between span of accountability and span of control (less than, equal to, or greater than). Then, these three groups were analyzed to identify within-group similarities in business strategy and organization design attributes. Finally, this clustering into subgroups was double checked by a qualified research assistant.

Before presenting the data, I should emphasize two points. First, this study was intended to be an inductive, theory-building exercise rather than a deductive test of predefined hypotheses. The purpose was to collect field data in a sufficiently large number of companies to identify patterns about the accountability and control choices that managers make in different situations. Accordingly, the results are presented as propositions rather than definitive conclusions. Second, the research design did not collect or analyze performance data. The clustering of the 72 studies was designed to identify central tendencies; therefore, no inference can be made that these choices are optimal.

*Step One: Analyzing Field Data from 13 Companies Undergoing Change*

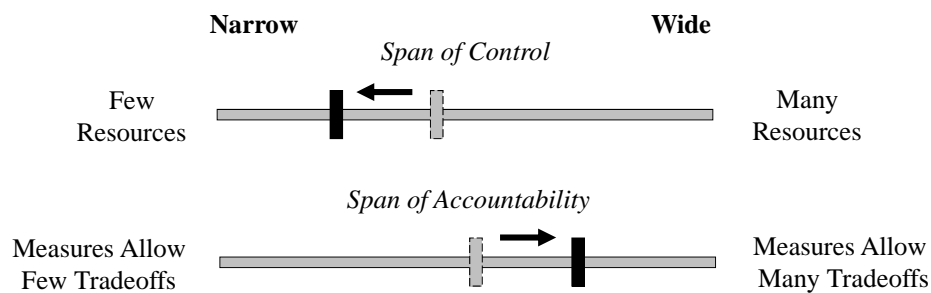
As a first step in the analysis, data from 13 of the 72 companies that had recently *altered*—or were in the midst of altering—the gap between span of control and span of accountability was examined in detail. The purpose of this analysis was to search for patterns in changing strategies, structures, and management control systems in an attempt to infer causality.

**Table 1** provides details of these thirteen organizations: twelve had recently *widened* the entrepreneurial gap by either widening span of



accountability, narrowing span of control, or both (illustrated in Figure 5).

Figure 5  
Widening the Entrepreneurial Gap to Stimulate Change



As Table 1 indicates, the twelve firms that widened the entrepreneurial gap can be split into two clusters: eight firms were facing greater competition and were in the process of implementing new strategies to be more customer- and market-focused; four firms were attempting to enhance internal coordination to support a new strategy.

The investment banking division of a London-based financial services firm (Company 1) provides a good illustration of the changes that were typical of firms in this cluster. As a result of faltering financial performance and a loss in market share to competitors, senior managers introduced a new strategy that refocused resources on top FTSE companies instead of smaller start-ups and early-stage companies that had been the focus of the business in the past. This new strategy would require more entrepreneurial cross-selling and increased internal coordination of products and services. To execute this strategy, executives redesigned both organization structure and performance measures.

On the structural side of the equation, each client-facing managing director (MD) had previously controlled all the resources needed to serve his or her twenty or more clients. With the new strategy, the business was reorganized into separate industry and product groups each with its own head. Under this new structure, MDs now had to coordinate with the various product groups for the delivery of services; moreover, they were given fewer resources to serve only five companies instead of the twenty or more companies they had been responsible for in the past. These changes (which diminished resources available to the MDs)) narrowed span of control. At the same time, span of accountability for the managing directors was widened. While still accountable for individual revenue generation (as before), new broader measures for cross-selling, client satisfaction, and overall group performance were added to their accountabilities.

With fewer resources and wider span of accountability, managing directors were now forced to be more entrepreneurial: they had to build networks within the investment bank to ensure the availability of resources for successful delivery of products and services and to work more closely with clients to respond to their individual needs.

In another firm in this cluster—a national clothing retailer (Company 2)—the CEO wanted to execute a turnaround that would restore the company's various brands to prominence. The CEO stimulated innovation by simultaneously narrowing span of control for market-facing units and widening their span of accountability. In the past, the powerful retail brands had controlled all aspects of their business with weak accountability for performance. The CEO reduced their span of control by consolidating key support functions such as sourcing, IT, and human resources to corporate headquarters. At the same time, he increased span of accountability by adding customer insight (ability to understand customer desires), product design, and store experience satisfaction to traditional financial measures—forcing them to become both more accountable and more entrepreneurial. The result of these changes: an increase in new product

introductions that appealed to target market customers and a reduction in markdowns for slow-moving merchandise.

The remaining six organizations in this cluster—a soft-drink bottling company, two mobile technology companies, a wealth management company, a securities firm, and a public school system—all responded in similar ways: widening the entrepreneurial gap [See Table 1 for details].

The second cluster of firms that widened the entrepreneurial gap comprised four firms where senior executives were attempting to introduce new—and more complex—strategies that required greater internal collaboration and coordination.

An example in this cluster was a biotechnology firm where executives had just completed a merger with a larger pharmaceutical company (Company 9). Executives of this firm wanted to leverage their new capabilities to drive growth through more market-focused innovation. One of the first things that they did was to reorganize from a functional structure to a new market-based business-unit structure. Newly-appointed business heads, who had previously served as functional managers with tightly aligned accountabilities, were put in charge of these customer-facing marketing units. However, these managers were given control of only a small subset of resources, typically the marketing groups of their business, giving them a relatively narrow span of control. On the performance measurement side, however, they were now to be accountable for new measures—contribution margin and building a sustainable therapeutic franchise—dramatically widening their span of accountability. As a result, they were forced to act as entrepreneurs to acquire and coordinate the resources they needed for competitive success. As the CEO stated, “This was the only way to unlock people and make them more entrepreneurial.” Not surprisingly, individuals with perceived entrepreneurial instincts were the ones selected for these critical new positions.

Only one firm in this group of twelve—an insurance business with falling financials (Company 13)—went in the opposite direction: instead of widening the gap between span of accountability and span of control, executives *narrowed* it. Managers in this firm were responding to a financial crisis as investment income fell and claims and administrative costs continued to rise. Unlike the previous eleven firms, they were not interested in innovation or enhanced customer focus. They wanted to increase the focus on efficiency by standardizing operations and improving expense and underwriting controls. To execute this new focus, span of control was unchanged, but span of accountability was narrowed significantly. A new balanced scorecard was implemented with the addition of many new detailed measures designed to limit discretion and ensure compliance with preset expense targets and underwriting standards.

### Step One Findings

The analysis of these 13 firms undergoing change provides insight into the rationale of managers as they make changes to structure and performance measurement systems: all the managers appeared to adjust span of accountability and span of control to either enhance entrepreneurial behavior in support of new strategies to become more responsive and competitive (the majority of cases) or limit it to ensure a focus on efficiency (one firm). The final stage of the research attempted to confirm the generalizability of these findings across a wider, more-inclusive sample.

### *Step Two: Analyzing Field Data from Remaining 59 Companies*

Analysis of the field data from the remaining 59 firms in steady state suggests five theoretical propositions, all building on a core hypothesis. Proposition one and two consider situations where span of accountability is greater than span of control. Proposition three focuses on situations where spans

of accountability and control are aligned. Propositions four and five consider the relatively small number of instances when span of accountability is less than span of control.

*Core Hypothesis: Managers adjust the entrepreneurial gap—setting span of accountability wider than, or equal to, span of control—to motivate varying levels of employee initiative and innovation.*

The core hypothesis (and finding) of this research is that managers adjust span of control and span of accountability to influence individual behavior. In most (but not all) of the firms studied, managers set span of accountability wider than span of control to motivate employee initiative and innovation. Several examples have already been provided, but it is instructive to consider an example from a non-business setting: military commanders going into battle.

Field studies of several military units—a U.S. Army combat team (Organization 50), a U.S. Marine helicopter commander (Organization 51), and the U.S. Marines in their race to Baghdad (Organization 53)—illustrate how commanders adjusted the entrepreneurial gap to execute their strategy. In each of these situations, under battle conditions, span of control shifted to the right as unit leaders were put in charge of a full complement of resources to engage the enemy. Yet, span of accountability was widened even further. Instead of accountability for narrow and detailed tactical objectives (the norm during routine maneuvers), unit leaders were now accountable for mission success, and were given freedom of action to deviate from plan or temporarily reorganize their units to accomplish the mission without approval from the commander. “Your mission is to win our war,” stated a U.S. Army General. This broad mandate demanded wide-ranging tradeoffs and entrepreneurial initiative in engaging the enemy and innovating in response to rapidly changing battle conditions.

With this core hypothesis as a backdrop, it is now time to consider the outcomes that managers seek when they set span of accountability wider than span of control.

*Proposition 1: Managers create an entrepreneurial gap to implement strategies that require high levels of customer service responsiveness.*

“Your number one goal is to provide outstanding customer service.”

[Retail CEO speaking to new employees]

Like many of the firms analyzed during the first two stages of the research, 18 of the 59 firms in steady state were following strategies that focused on achieving high levels of customer service responsiveness as a driver of competitive success [See **Table 2** for details].

Five of the firms in this cluster were retailers attempting to deliver a unique experience to generate customer loyalty and repeat sales. Firms in this group included several upscale clothing retailers, a direct sales cosmetics firm, and an innovative retail bank. In each case, employees were held accountable for customer satisfaction measures that were significantly wider than their span of control.

For example, a bank in this cluster (Company 19) was attempting to differentiate itself by exceptional levels of customer service. Branch managers had no control over products, rates, and marketing programs—all of which were controlled centrally—but were still accountable for deposit and consumer loan growth. Managers responded with entrepreneurial ways to attract new business. Managers at one branch with limited parking, for example, introduced a free, valet-parking service. At another branch, banking hours were extended to cater to

the large number of employees who worked the night shift at a nearby manufacturing facility.

An additional five firms in this cluster were professional service firms—consulting firms, accounting firms, and health care firms—attempting to build long-term partnerships with clients. Again, rapid and flexible response to customer needs was essential to long-term competitive success. These firms used dedicated account teams to deliver customized sales and implementation services to customers. Although no single person on the team controlled all the resources needed to deliver results on these measures, each individual was accountable, and rewarded, for customer satisfaction and repeat business (see, for example, Companies 20 and 25). To succeed, employees of these firms were required to act as entrepreneurs—building relationships outside the team, acquiring and borrowing resources, and working with customers to pull together project teams to ensure a fully satisfied customer.

One study in this cluster looked at the entrepreneurial gap in a for-profit charter school (Company 30). These types of schools, which are exempt from U.S. state or local regulations, offer parents the option of removing their children from state-regulated schools in favor of a more performance-oriented environment. For this business model to be competitive, managers must ensure that parents are satisfied since parents can opt out and return their children to the public school system at any time.

Within the charter school, teachers' span of accountability was unusually wide. Teacher performance was evaluated on three primary measures: parent satisfaction ratings, student achievement scores, and principal evaluation. Faced with a chronic shortage of resources (i.e., narrow span of control), teachers in these schools were forced to be entrepreneurial—shaping the curriculum to the needs of individual students, sharing best practice across classrooms, and introducing innovations such as cross-classroom collaboration, invitation of subject experts from other schools, and cross-site observations into teaching methods whenever possible.

But the quest for high levels of customer satisfaction was not limited to service companies. Consider, for example, an automotive supplier that sold integrated parts such as exhaust systems to the big three U.S. auto manufacturers (Company 27). Because of industry concentration, this firm could not afford to lose a single customer. Program managers within each division, with predictably narrow spans of control, were accountable for two broad measures: project profitability and customer satisfaction. To achieve these measures, they had to make a variety of ongoing tradeoffs affecting the revenue and cost of multi-year programs. This was complicated by the fact that decisions to cut costs often worked against customer satisfaction. As a result, program managers, who did not control all the relevant resources for a satisfied customer relationship, were forced to be entrepreneurial in finding creative ways of working with other managers and functions to make tradeoffs that could sustain long-term customer loyalty.

*Proposition 2: Managers create an entrepreneurial gap to stimulate coordination of effort across functional and unit boundaries in complex organizations.*

“They have no choice but to figure out how to be accountable to both a product line boss and a regional boss.”

[Executive vice president of multinational company]

In 22 of the 59 firms, senior managers were attempting to motivate people to be entrepreneurial in working across the boundaries, functions, and business units that were a result of complex organization designs [See **Table 3** for details]. Faced with wide spans of accountability and constrained resources, subordinates were forced to interact with people in other parts of the organization who controlled the resources they needed to achieve their goals. Not surprisingly, these firms tended to be large and geographically dispersed: 14 of the 22 (64%) were public companies and 4 (18%) were government or military units.



The most common use of the entrepreneurial gap to stimulate across-boundary interaction was in firms with matrix reporting relationships (11 of the 23 firms). Matrix reporting relationships invariably result in both the sharing of resources and limited spans of control (Galbraith, 2009). A computer services firm in China (Company 35), for example, operated a three-dimensional matrix—with units organized by industry, geography, and product—so that no individual manager controlled all the resources needed for success. Yet, accountability for sales revenue on each arm of the matrix required managers to seek out resources controlled by others to ensure success against performance targets.

Similarly, a consumer packaged-goods company (Company 36) reorganized from regional units to worldwide product groups with a regional matrix overlay. At the same time, spans of accountability were widened to encompass performance measures for volume, sales revenue, earnings, and brand equity growth across global brands, geographic markets, and key retail partnerships. Success on these measures required inputs by many different groups within the company. For example, the global business units, which were accountable for brand P&L, relied on regional marketing organizations for market execution. At the same time, the geographical marketing organizations, responsible for sales and sales growth, were forced to rely on the global business units for overall marketing strategy and product development. Faced with this entrepreneurial gap, managers in these various units had no choice but to figure out how to coordinate and innovate to meet their performance targets.

But the creation of an entrepreneurial gap was not reserved to matrix organizations. Firms with single-dimension reporting structures also used this technique to foster collaboration across unit boundaries. For example, executives in a worldwide real estate firm (Company 48) wanted to increase coordination across geographic units. To do so, they created an entrepreneurial gap by narrowing the span of control of regional managers. Investment decisions, previously made in the regions, were now centralized to corporate headquarters in Amsterdam. But country managers (in Latin America, for example) were still

accountable for local project profitability. Without direct access to funding resources, country managers were now forced to be entrepreneurial in figuring out how to work across borders and with headquarters to gain acceptance for deals they wanted to initiate.

In another firm, a medical products firm that was organized by function (Company 44), managers were attempting to motivate cross-selling and new product development across the two separate product lines. Accordingly, span of accountability was widened by holding managers accountable for overall corporate performance and allocating 70% of their bonus to this measure.

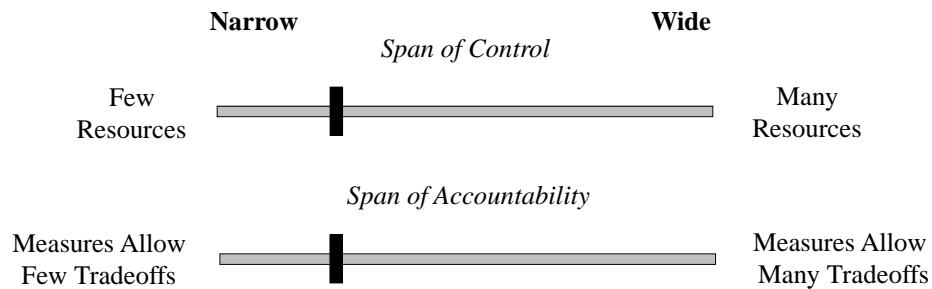
*Proposition 3: Managers align span of accountability and span of control for routine work and self-contained functions.*

“A monkey could run this thing.”

[CEO referring to automated work process]

Thirteen of the 59 studies revealed tight alignment between span of accountability and span of control as predicted by the controllability principle [See **Table 4**]. This group included the work of an accounting department in a large consumer packaged-goods company, hourly workers in a food processing company, an HR benefits department, and managers of a call center focused on low cost and efficiency. The typical relationship between span of control and span of accountability for jobs in this cluster is illustrated in **Figure 4**.

Figure 4  
Routine Work: Span of Accountability = Span of Control



Most of these units, with both a narrow span of control and a narrow span of accountability, were shielded from market competition. Consider, as an example, the centralized service center operation of a Korean bank (Company 55). This unit handled inbound calls, outbound sales, and collections. Efficiency was the overriding objective of the unit and, accordingly, employees specialized in specific functions. Span of control was narrow: managers were given straightforward tasks and little freedom over the allocation of resources. But span of accountability was also narrow. Managers were not responsible for a P&L, but rather were accountable for operating expense measures and efficiency targets.

This result applied to more than back office functions. There was another bank in this cluster—a cooperatively-owned Japanese bank (Company 57)—where interest rates were controlled by government regulators and customer service expectations were low. Accordingly, the bank focused on operating efficiencies to control costs and ensure adequate profit margins. Managers and employees who dealt with customers controlled few resources and were given few decision rights. Span of accountability was also narrow, focusing primarily on transaction volume and efficiency measures.

As these two examples illustrate, most jobs analyzed in this cluster were routine work functions that focused on efficiency and standardization. Individuals were given full control over the relatively limited resources needed to do their jobs. Goals, representing short-term tactical objectives, were clear and measurable. Resources were limited, but so was the range of decision trade-offs that were needed for the task. There was little desire by superiors for innovation.

This was not always the case for organizations in this subgrouping. For some of these firms (Company 63—a UK grocery chain, and Company 64—hedge fund traders at a large US agricultural business), span of accountability and span of control were aligned, but shifted to the right as market competition increased. In the grocer, which competed on low price, some flexibility to respond to market needs was desirable, but the amount of innovation was circumscribed to ensure that ability to constrain costs. Distribution and product merchandising were centralized, but store managers still had some flexibility to modify store layouts and some control over merchandising. Span of accountability was aligned to their span of control through a detailed balanced scorecard (called “The Steering Wheel”) that held store managers accountable for detailed key performance indicators (KPIs) relating to customers, operations, finance, and people.

Finally, in two of the firms that operated in highly competitive markets (Company 65 and 66—both financial trading/investment firms), span of control and span of accountability were aligned at wide levels. In both firms, portfolio managers had full authority over investment resources and span of accountability was equally wide: in one firm, they were accountable for investment returns relative to the market; in the other firm, they were accountable for 4-year moving average returns. In both these cases, trading desks were self-contained (they did not need to coordinate their activities with other people or functions), and they were paid solely by commission with bonuses based on their financial trading performance. This highly-leveraged incentive structure was used to motivate the

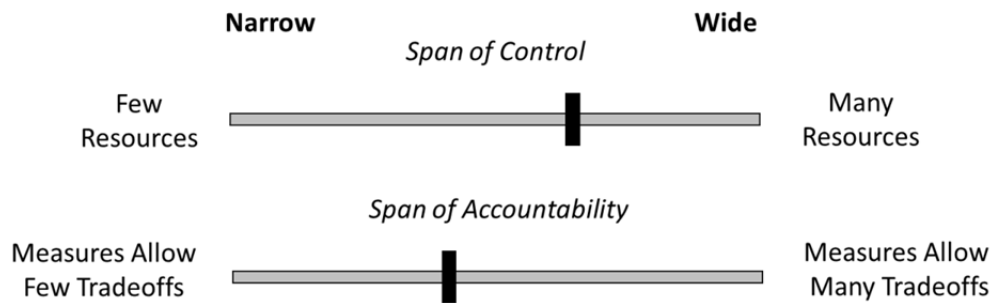
entrepreneurial behavior desired by senior executives. This situation was unique in the sample to these two trading firms.

Analysis of the remaining 6 firms in the sample—where span of accountability was less than span of control—yields the final two propositions of the study.

*Proposition 4: Managers who want employees to comply with orders make span of accountability narrower than span of control.*

In three of the companies studied, managers intentionally set span of accountability narrower than span of control (Figure 6). Two of these companies (Companies 67 and 69) were managed by family owners; the third company (Company 68) was public, but had a CEO who was a micromanager [see **Table 5** for details]. In all three of these companies, the intention of executives was the same: to limit the degrees of freedom of subordinates to ensure compliance with management's wishes.

Figure 6  
Span of Control > Span of Accountability  
Compliance Focus



Consider the example of the Thailand rice export company (Company 67). Warehouse and factory managers were given a wide span of control with control over more than 600 employees and budgets in the millions. But they were accountable only for simple volume measures: ensuring that the right products were delivered at the right time to the right customers. They had no P&L line-item responsibility. Instead, they were expected to comply with the instructions of the family/owner executives.

The effect of narrowing span of accountability relative to span of control is the opposite of the entrepreneurial gap—the intent is to narrow degrees of freedom and limit innovation. This may be appropriate in the relatively small number of instances when safety and quality are paramount (say, if operating a nuclear reactor). But in a competitive business, an unyielding focus on compliance brings risk. In the fashion design firm (Company 69), for example, executives narrowed span of accountability by micromanaging, thereby reducing the innovation of the business (and throwing its ability to adapt into question).

In the remaining three firms, span of accountability was also less than span of control but, in these cases, this was not a function of management intent to limit discretion. Instead, managers had failed to implement management

control systems that were adequate in creating the necessary accountability. This leads to our final proposition.

*Proposition 5: Operational inefficiencies can result when span of accountability is narrower than span of control.*

Although this study was not designed to gather or analyze performance data, the mismatch between span of control and span of accountability led to obvious operational inefficiencies and the underutilization of resources in three firms [see **Table 6**]. All three firms were experiencing downwardly spiraling performance.

Consider Company 70, a Chinese Internet start-up with about 600 employees. Managers had wide span of control with all the necessary resources to develop content, services, and marketing. Span of accountability, however, was narrower. Performance measures focused on eyeballs and page view growth with no accountability for profit. Not surprisingly, financial performance was poor and the company was almost delisted from NASDAQ.

Another study in this cluster (Company 71) focused on the finance department in a Brazilian steel producer that was losing market share because of excessively high costs. The span of control for professionals in the finance department was relatively high: they were provided with ample headcount and resources to manage financial operations and taxes, support business unit managers, and manage investor relations. But span of accountability was notably narrower, with measures focused primarily on transaction volume and accuracy of repetitive tasks. As a result, resources were not efficiently deployed and expenses were too high. (consultants were later hired to define new accountability measures to remedy the situation).

## Discussion

Much of the theory of organization design is based on the concept of alignment (of strategy, structure, systems, skills, staff, etc.). In contrast this research focuses on how and when managers seek to *destabilize* an organization through a deliberate misalignment of span of accountability and span of control.

Prior empirical research into this topic has relied on field study data from a limited number of sites (e.g., Toms, 2005; Merchant, Chow, and Wu, 1995; Otley, 1990; Merchant, 1987), survey data (e.g., Giraud, Langevin, and Mendoza, 2008; Ittner, Larcker, and Rajan, 1997; Antle & Smith, 1986), or laboratory experiments with student subjects (e.g., Frederickson, 1992; Shields, Chow, and Whittington, 1989).

Each of these methods provides unique strengths, and some limitations. *Field studies* allow researchers to capture organizational context and consider a wide range of variables that may be difficult to predict in advance. On the minus side, field studies are limited by small sample size and a lack of variety across settings that can limit generalizability and the identification of alternative patterns of action that may result from different contexts. *Surveys* provide a large number of observations to carefully test hypotheses and allow researchers to cluster variables to identify central tendencies. But surveys are limited by the need to compress complex ideas into scaled responses and a risk that important variables may be omitted from questionnaire designs. *Laboratory experiments* allow precise manipulation of treatment effects and careful controls, but the number of variables must be restricted by design, and validity issues often arise when students are used as subjects.

This study attempted to overcome some of these limitations by augmenting in-depth field data collected by the author in three separate companies with a larger data set generated by 72 teams of MBA student researchers. But by ceding some control to student researchers, this design introduces limitations of its own. I attempted to attenuate these limitations by the



following procedures: (1) students who conducted the field studies were carefully trained in concepts relating to span of accountability and span of control, (2) the work of each student team was checked and double checked by the author and a qualified, full-time research associate, and (3) the clustering reported in this study was independently verified by a qualified research associate. But concerns about the reliability of data and conclusions must be acknowledged. Therefore, the results of this study are reported as inductively-derived hypotheses or propositions that may be worthy of further, more carefully-controlled, testing.

Also, it should be recognized that the descriptive results reported in this analysis are not linked explicitly to organizational performance variables. As a consequence, there is no evidence that the choices made by managers are optimal.

Notwithstanding these limitations, there was a high degree of consistency within identified clusters, suggesting three tentative conclusions.

First, managers appear to adjust span of accountability relative to span of control based on the degree of innovation and independent initiative they wish to foster. When the controllability principle was first articulated by practitioners in the 1880s—and prescribed by textbook authors for the ensuing one hundred years—employees were not expected to innovate. Bosses decided what should be done and employees executed those orders. In this command-and-control world, the work of employees was standardized and predictable. In this environment, it made perfect sense to argue that authority (span of control) should equal responsibility (span of accountability).

The same conditions still exist today for routine work, or where cost, safety, and quality demands make it imperative that employees follow standard operating procedures. In these situations, managers continue to align span of accountability and control or they may even narrow the entrepreneurial gap to limit discretion and enhance a focus on efficiencies. But, as evident from the data presented here, such situations seem to be the increasingly-rare exception, rather than the rule, in today's highly competitive environment.

This leads to our second conclusion. When managers want employees to build long-term relationships with customers, develop new products and services, or navigate the labyrinths created by complex organization designs, they set span of accountability wider than span of control. Holding individuals accountable for measures that are wider than the resources they control forces them to become resourceful in working with others in different units to figure out how to solve problems and turn opportunities to advantage.

Early inklings of this finding were reported by Dent (1987) in his field study of a European computer company:

In Eurocorp [disguised company name] the controllability principle is rarely applied. Manufacturing plants are cost centers, as the principle predicts, but both development and sales units are also accountable for profit. They are not treated as profit centers in the conventional sense of buying and selling to each other; rather they are jointly accountable for the total corporate profit... (p. 133)

Arguably, controllability is inappropriate in Eurocorp's context. Conventional performance measurements could foster insularity and a preoccupation with the efficiency of local functional tasks to the exclusion of their implications for other units' activities. Applying the controllability principle to development units, for example, would make them accountable for the costs of product development per se. This could concentrate managers' attention on the efficiency of their development activities. But it is less than clear that they would be encouraged to respond to emerging market requirements....Application of the controllability principle across the organization could foster disintegration and inhibit adaptation as each unit sought to enhance the efficiency of its own activities in isolation. (p. 140-141)

While this result may have appeared as an anomaly in 1987, it seems to be the norm today. Merchant and Otley (2006), in their review of the literature on accountability and control, conclude that executives may want to violate the controllability principle to encourage managers to respond to changes in factors outside their control. This seems especially true in today's customer-centric businesses where employees must be empowered to exercise initiative to cross

organizational boundaries, innovate, and meet customer needs in rapidly-changing competitive markets (Gulati, 2010; Rowe, Birnberg, and Shields, 2008).

Notwithstanding the propositions advanced in this paper, it is important to note that the results of this study do not overturn the validity of earlier work that has studied the potential for dysfunction when the controllability principle is violated. Forcing individuals to be entrepreneurial by holding them accountable for broad measures assumes that they can be successful in their attempts to influence colleagues and others in the business who control resources. An entrepreneur trying to start a new business who is denied access to venture capital funding is bound to fail. Similarly, an individual inside a company who cannot enlist the help of others in securing the resources needed to innovate, satisfy customer demands, or operate across complex boundaries will also likely fail (Simons, 2005, chaps. 6 and 8).

Therefore, the anxiety and frustration identified by previous research (e.g., Merchant, 1987, 1989; Fischer, 2010) can still be expected if the conditions for entrepreneurial initiative are not supported. Individuals must be able to influence others in the firm who control the resources necessary for success, and norms must exist that encourage the offering of a helping hand to those seeking new ways of achieving their goals. Without these conditions, dysfunctional behavior is inevitable.

The propositions developed in this study offer a potentially new way of thinking about the links between accountability, performance measures, and organization design in complex organizations. I hope that these ideas will stimulate further research in a domain that is at the heart of strategy execution in today's increasingly competitive markets.

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**Table 1****13 Companies that Changed the Relationship Between Span of Control and Span of Accountability**

	<u>Company/Organization</u>	<u>Unit of Analysis</u>	<u>Competitive Context</u>	<u>Strategy/Goals</u>	<u>Entrepreneurial Gap</u>	<u>Span of Control</u>	<u>Span of Accountability</u>
<i>Cluster 1: Companies Implementing New Strategies to Create Greater Customer and Market Focus</i>							
1	Global investment bank (UK)	Client-facing managing directors (MD)	Poor financials due to lack of market responsiveness	Refocus products/services on new primary customer (Top FTSE companies instead of early-stage start-ups)	<b>Widened</b>	Narrowed: created new industry/product groups which reduced resources given to MDs	Widened: added cross-selling group performance and client satisfaction (new) to individual revenue targets (old)
2	Fashion retailer (US)	Business heads	Poor financials due to lack of market responsiveness	Enhance market-based innovation to enhance consumer appeal	<b>Widened</b>	Narrowed: centralized core functions including supply chain, IT, HR	Widened: added consumer insight, store & design excellence (new) to P&L accountability (old)
3	Mobile technology company (China)	R & D Team	Failing strategy due to lack of market responsiveness	Improve market-based innovation by becoming more responsive to BU needs	<b>Widened</b>	Narrowed: budget allocation reduced and now set by HQ (as before) and BU (new)	Widened: added accountability for number of new products, design awards, killer apps, and top-10 "hits"
4	Wealth management company (US)	Equity analysts	Reputational crisis due to perceived conflicts of interest	Change strategic orientation to focus on investors instead of in-house investment banking division	<b>Widened</b>	Narrowed: cutback of resources and financial support	Widened: customer satisfaction (new) instead of deal contribution (old)
5	Soft drink bottling company (US)	Regional sales reps	Perceived lack of market responsiveness	Operate newly-spun off bottling company to allow more focus on retailers as primary customers	<b>Widened</b>	Narrowed: logistics, manuf, and route network functions centralized to HQ	Widened: revenue with pricing flexibility (new) instead of unit volume quotas (old)
6	Securities firm (China)	Market-facing units comprising research analysts and sales teams	Anticipated threat of foreign competitors entering market	Change strategy to serve institutional investor instead of state-owned parent co. and affiliates	<b>Widened</b>	Unchanged (narrow): reorganized into expert knowledge groupings but key decisions still made by top managers	Widened: customer satisfaction (new) instead of seniority and "guanxi" (relationships)
7	Public school system (US)	Principals	Perceived achievement gap; desire to fend off threat of charter schools	Apply business principles in school setting	<b>Widened</b>	Widened: moved from centrally-planned resource allocation to local freedom to shift resources between budget categories and to hire and fire (new)	Widened (even more): student test score improvement, school ranking, and parent satisfaction (new) instead of budget compliance
8	Mobile telephone company (Spain)	Regional business heads	Growth stalled as market for first-time users is saturated	Build customer loyalty to reduce churn rate	<b>Widened</b>	Narrowed: centralized distributor sales to key account managers (newly-created position)	Widened: added handset upgrades (a measure of loyalty), portability, and value-added services (new) to customer acquisition (old)

## Table 1 (cont'd)

### 13 Companies that Changed the Relationship Between Span of Control and Span of Accountability

#### *Cluster 2: Companies Implementing New Strategies that Require More Internal Coordination*

9	Biotechnology firm (US)	Business unit managers	Top management desire to become major pharma player	Integrate merger of two companies that were functionally organized	<b>Widened</b>	Unchanged: new BUs created but resources limited since major functions (e.g., sales) still report to functional heads	Widened: contribution margin and growth in therapeutic franchise (new) replace functional measures (old) from previous design
10	Pharmaceutical company (US)	Manufacturing unit head	Quality failure; threat of regulatory sanctions	Increase sharing of best practices and improve quality by elevating manuf to same level as R&D and Mktg/Sales	<b>Widened</b>	Widened: reorganized from regional basis to technology networks	Widened (even more): added productivity at network and product/process levels, and benchmarks of outside best-practices companies (new) to compliance targets (old)
11	Energy technology products (Japan)	Business unit managers	Increasing competition in previously government-supported business	Change strategy from global trading to new focus on vertically-integrated global energy business	<b>Widened</b>	Widened: reorganized functions into SBUs with control of working capital and fixed assets	Widened (even more): Added EVA with risk adjusted returns, negotiations for strategic alliances, increase in volume with strategic suppliers
12	Management consulting firm (US)	Local office partners	Growth in multiple regions causing fragmentation in client service delivery	Coordinate client responses across worldwide offices	<b>Widened</b>	Narrowed: Introduced worldwide client teams headed by global Sr. VP, reducing resources controlled by local offices	Unchanged: local office P&L accountability

#### *Companies Undertaking a Major Initiative to Improve Standard Operating Procedures*

13	Insurance company (US)	Branch managers	Poor financials due to weak underwriting and expense controls	Standardize operations to improve efficiencies	<b>Narrowed</b>	Unchanged: functional design with limited resources at branch level	Narrowed: Added nine detailed measures to BSC that focused on productivity, capability-building, and customer experience
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**Table 2****Proposition 1: Entrepreneurial Gap Used to Implement Strategies that Require High Levels of Customer Service Responsiveness**

		<b>Entrepreneurial Gap</b>	
<u>Company/Organization</u>	<u>Unit of Analysis</u>	<u>Primary Accountability Measures</u>	<u>Important Resources Not Controlled</u>
14 Retail Specialty Restaurant Chain (US; public)	Franchised Restaurant Managers	Customer satisfaction, expenditure per customer, revenue	Menu, ingredients, pricing, etc.
15 Luxury Fashion Retailer (US; private)	Merchandise Buyers	Sales of merchandise selected by buyer, company performance	Sales staff activities
16 National Sports Team (US; private)	Specialty Event Service Staff	Incidents/fights per section	Behavior of fans
17 Direct Sales Cosmetics Company (US; private)	Sales Consultants	Customer satisfaction, sales revenue of recruits	Independent recruits
18 Fashion Retailer (US; public)	Sales Associates	Ranked sales-per-hour, sales revenue	Assigned shifts, product assortment, price
19 Retail Bank (US; public)	Bank Managers	Deposit and consumer loan growth	Product features, interest rates
20 Big Four Accounting Firm (UK; partnership)	Partners	Client satisfaction, financial performance	Knowledge teams, technology support
21 Physicians Medical Group (US; public)	Physicians	Patient health outcomes	Patient compliance with protocols
22 HMO Healthcare Provider (US; private)	Clinicians	Customer satisfaction, contribution margin	Centrally-controlled medical management standards
23 Information Technology Service Company (Peru; private)	Sales managers	Revenue, profit margin	Product management teams, service specialists
24 Management Consulting Firm (US; partnership)	Consultants	Revenue, profit, customer satisfaction, % repeat business	Industry/functional practice specialists
25 Maintenance Consulting Firm (US; private)	Consultants	Billable days, client sat. scores, new bus. sold as a result of engagement	Work of other consultants on team
26 Computer Manufacturer/Retailer (US; public)	Business Leaders	Customer satisfaction, shareholder value, revenue/profit	Centralized product, procurement, and manuf. groups
27 Automotive Supplier (US; public)	Light Vehicle Systems Division Managers	Customer satisfaction, profitability	Activities of other divisions required for integrated product modules
28 Food Manufacturing Company (Egypt; public)	Sales Managers	P&L, market share, brand equity, market expansion	Budget of discounts, sales force size, supply chain
29 Venture Philanthropy (US; nonprofit)	Staff	Overall fundraising, net surplus	Activities of others in organization
30 Education Company (US; private)	Teachers	Student test performance, parent satisfaction	Student out-of-school study behaviors
31 Luxury Clothing Designer (US; public)	Brand Managers	Overall company growth & profitability	Sourcing, manufacturing, distribution

**Table 3**

Proposition 2: Entrepreneurial Gap Used to Stimulate Coordination Across Complex Organizations

	<u>Company/Organization</u>	<u>Unit of Analysis</u>	<u>Organization Design Configuration: Source of Complexity</u>
32	Food Processing and Marketing Company (US; public)	Marketing Managers	Matrix: product units + functions
33	Live Concert Promoter (US; private)	Division Managers	Matrix: venues + functions
34	Internet Technology Provider (US; public)	Sales and Marketing Managers	Matrix: sales channels + products
35	Information Technology Company (China; public)	Sales and Distribution Managers	Matrix: industry + geography + product
36	Consumer Goods Company (US; public)	Operating Core Managers	Matrix: products + regions
37	Consumer Goods Company (UK; public)	Business Unit Managers	Matrix: regions + functions
38	Consumer Goods Company (China; public)	Brand Managers	Matrix: brands + regions + functions
39	Global Finance (US; public)	Relationship Managers	Matrix: regions + products + risk
40	Automotive Company (Japan; public)	Country Managers	'Glocalization': global design + local customization of engines and interiors
41	Manufacturing Corporation (Ireland; public)	Business Unit Managers	Global product groups: each BU head also responsible for one global function
42	Graduate Business School (US; nonprofit)	Faculty and Staff	Matrix: academic knowledge units + program functions
43	Semiconductor Manufacturer (US; public)	Division Managers	Matrix: products + functions
44	Women's Health Product and Services Company (US; public)	Product-line Managers	Functional design: desire to promote cross-selling across product lines after acquisition
45	Financial Services Company (US; public)	Business Unit Managers	Global product groups: large size with activities in 100 countries
46	Conglomerate (US; public)	Division Managers	Global product groups: large size and sophisticated technologies
47	Executive Branch of Government (US; government)	Agency executives	Performance Improvement Initiatives: agency staff have no formal authority to change gov't depts
48	Commercial Real Estate Company (Netherlands private)	Division Managers	Independent regional units: desire to coordinate future development
49	Retail Bank (Argentina; public)	Wholesale and Investment Division Managers	Matrix: region + global product heads
50	United States Army Division (US; government)	Elite Combat Team Officers	Combat units: unpredictable battle conditions
51	United States Marine Corps Squadron (US; government)	Attack Squadron pilots	Combat units: unpredictable battle conditions
52	Cardiac Care Hospital (US; partnership)	Physicians	Hospital units: need for integrated care
53	United States Marines Division (US; government)	Individual Marines - Iraq Invasion	Combat units: unpredictable battle conditions

**Table 4****Proposition 3: Managers Align Span of Accountability and Span of Control for Routine Work and Self-Contained Functions**

	<u>Company/Organization</u>	<u>Unit of Analysis</u>	<u>Span of Control</u>	<u>Span of Accountability</u>
54	Consumer Products Company (China; public)	Accounting Managers	Narrow: accounting staff resources	Narrow: accuracy of records and timely delivery
55	Commercial Bank (Korea; public)	Customer Service Center Managers	Narrow: service Center staff and resources	Narrow: detailed BSC emphasizing process measures and operating expenses
56	Enterprise Software Company (US; private)	HR Managers	Narrow: few resources	Narrow: detailed process measures
57	Regulated Cooperative Bank (Japan; cooperative)	Market-facing Managers	Narrow: constrained by heavy bank regulation	Narrow: asset size; few tradeoffs allowed by customer-facing managers
58	Internet Auction Company (US; public)	Category Managers	Narrow: few resources; cannot discount, no marketing budget	Narrow: number of listings, average selling price (no P&L accountability)
59	Food and Beverage Manufacturing Company (Egypt; private)	Operations and Sales Managers	Narrow: minimal control over resources in family owned company	Narrow: decision making highly centralized
60	Medical Device Company (US; public)	Sales Force	Narrow: time spent visiting clinics in their assigned area	Narrow: percent operating plan (quota) revenue
61	Software Company (Germany; public)	Product Managers	Narrow: bulk of resources allocated to customer relationship managers	Narrow: developing/delivering defined product features
62	Wholesale Grocery Company (US; private)	Warehouse Managers	Narrow: workers and equipment	Narrow: labor utilization, efficiency, equipment upkeep
63	Food and Beverage/Grocery Company (UK; public)	Store Managers	Medium: low price strategy centralizes many (but not all) resources	Medium: BSC with detailed KPIs tracking store performance
64	Agricultural Business (US; private)	Hedge Fund Unit Managers	Medium: authority over trades subject to authorization of exec comm.	Medium: deal status, profit to date by deal
65	Investment Management Firm (US; public)	Investment Division Managers	Wide: full authority over investment resources	Wide: investment returns relative to market
66	Mutual Fund Investment Company (US; private)	Portfolio Managers	Wide: full authority over investment resources	Wide: 4-year moving average returns

**Table 5**

Proposition 4: Managers Make Span of Accountability Narrower than Span of Control to Ensure Compliance

<u>Company/Organization</u>	<u>Unit of Analysis</u>	<u>Context</u>	<u>Span of Control</u>	<u>Span of Accountability</u>
67 Rice Exporting Company (Thailand; private)	Warehouse and Factory Managers	Family owners desired compliance with their instructions	Medium: full control of function's resources	Narrow: simple volume measures; no link to profitability
68 Media and Entertainment Conglomerate (US; public)	Creative Studio Managers	Crisis of control: CEO micromanaged curtailing innovation	Narrow: all resource spending authorized by CEO	Even Narrower: all processes and outcomes monitored by CEO
69 Fashion Design Firm (France; private)	Designers	Family owners micromanaged curtailing innovation	Wide: full control over strategic and operating resources	Medium: limited measures; no accountability for financial results

**Table 6**

Proposition 5: Operational Inefficiencies Can Result When Span of Accountability is Narrower than Span of Control

<u>Company/Organization</u>	<u>Unit of Analysis</u>	<u>Context</u>	<u>Span of Control</u>	<u>Span of Accountability</u>
70 Online Media Company (China; public)	Senior Management	Losses threaten viability of business	Wide: substantial resources given to new gaming business	Medium: unreliable eyeballs and page view metrics; no P&L accountability
71 Steel Producer (Brazil; public)	Finance Department Managers	Cost basis considerably higher than competitors	Medium: excessive resources, esp. headcount	Narrow: measures focus on repetitive tasks
72 Export Trading Company (China; government-owned)	Operating Managers	Weak financial performance; survival threatened	Medium: control of centralized resources	Narrow: focus on input measures such as hours worked instead of outputs