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**CROSS-BUSINESS SYNERGY: RECOMBINATION, MODULARITY AND THE
MULTI-BUSINESS TEAM**

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CROSS-BUSINESS SYNERGIES

Abstract

The pursuit of synergy is at the heart of the rationale for the existence of the multi-business organization. Indeed, the promise of synergies is the primary logic behind strategic moves like diversification, acquisitions and alliances. However, despite the enormous attention that management focuses on different means to achieve cross-business synergies, their realization remains an elusive goal for many organizations. In contrast to the economic models of value-creation in diversified firms, which focus on the sources of potential synergy, this inductive study of 12 cross-business synergy initiatives in six firms examines the processes by which potential synergies are realized. This study adds to the understanding of the nature of the corporation and its value by developing a preliminary theoretical framework describing how managers of multi-business firms capture corporate value in dynamic markets through processes of corporate entrepreneurship. In particular, this study explores the changing role of the corporate center and the emerging role of the multi-business team (i.e., the general managers) – a new unit of governance that focuses on the relationships among the business-units. Moreover, this research attempts to make a broader contribution to organizational theory by developing a rationale for the M-form that is based on a logic of innovative recombination and the coevolution of the business-units and markets, rather than one of economizing attention and controlling opportunism. This research also makes a broader contribution to theories of strategy and entrepreneurship by focusing on how advantage is derived from continually seeking new opportunities, rather than on assembling resources, establishing sustained positional advantages, or exploiting resource similarities.

Keywords: Cross-business synergy, dynamic capabilities, organizational processes

The pursuit of synergy is at the heart of the rationale for the existence of the multi-business corporation (Porter, 1985; Kanter, 1989). Indeed, the promise of synergies is the primary logic behind strategic moves like diversification, acquisitions, and alliances (Gupta, 1987; Barney, 1997; Goold, and Campbell, 1998; Larsson, and Finkelstein, 1999). However, despite the enormous attention that management focuses on different means to achieve cross-business synergies, their realization remains an elusive goal for many organizations (e.g. see studies by: Bettis, 1981; Palepu, 1985; Chatterjee, 1986; Amit, and Livnat, 1988; Ramanujam, and Varadarajan, 1989; Davis, and Thomas, 1993; Lang, and Stulz, 1994; Berger, and Ofek, 1995; Servaes, 1996; Stimpert, and Duhaime, 1997; Eisenhardt, and Galunic, 2000; Palich, Cardinal, and Miller, 2000).

I define cross-business synergies as “the value that is created and captured, over time, by the sum of the businesses together relative to what it would be separately” (Martin, and Eisenhardt, 2001,: 3). This definition is intended to account for value that is created from cost savings (Jones, and Hill, 1988) as well through revenue enhancements (Davis, and Thomas, 1993; Goold, and Campbell, 1998). In addition, it encompasses the temporal nature of synergies, where value is created by sharing and recombining resources over time in the building of new competitive advantages (Eisenhardt, and Galunic, 2000). For example, synergies can be created by assembling related businesses together that can share manufacturing facilities, pooling financial capabilities, or collaborating to build new products and services faster (i.e., shorter time-to-market) and/or with greater functionality than could be accomplished if the businesses were separate.

Cross-business synergies deal with two of the most crucial relationships in the corporation: the relationship between each business-unit and the corporate center, and the

relationship among the business-units. Some scholars have questioned whether these relationships have any significant effect on firm performance, suggesting that differences in performance are due primarily to business-unit and/or industry effects (e.g. Schmalensee, 1985; Wernerfelt, and Montgomery, 1988; Rumelt, 1991). However, recent studies of the sources of variance in firm performance, utilizing improved sampling and more robust statistical methods, have observed corporate effects of up to 18% on variance in firm performance (e.g., Roquebert, Phillips, and Westfall, 1996; McGahan, and Porter, 1997; Brush, Bromiley, and Hendrickx, 1999; McGahan, and Porter, 1999).¹ These findings provide persuasive evidence that cross-business synergies (and dissynergies) do in fact exist. In other words, the corporate level does matter.

A second line of research focuses on the sources of cross-business synergy (Bettis, 1981; Amit, and Livnat, 1988; Montgomery, and Wernerfelt, 1988; Ramanujam, and Varadarajan, 1989; Montgomery, 1994; Stimpert, and Duhaime, 1997; Brush, et al., 1999; Liebeskind, 2000; Palich, et al., 2000). Three sources of potential synergies have been theorized: economies of scope, market power, and internal governance advantages (Martin, and Eisenhardt, 2001). Economies of scope may occur when related diversified firms are able to benefit, in terms of efficiency, from sharing the costs of production among similar products or services, thereby reducing the overall per-unit costs among the businesses (Panzar, and Willig, 1981; Bailey, and Friedlander, 1982; Palepu, 1985). Market power refers to how diversified firms can “thrive at the expense of non-diversified firms not because they are any more efficient, but because they have access to what is termed *conglomerate power*” (Hill, 1985,: 828). This allows them to keep prices high relative to costs through anti-competitive behaviors (Bernheim, and Whinston, 1990; Hughes, and Oughton, 1993; Evans, and Kessides, 1994; Besanko, Dranove, and Shanley, 2000).

Internal governance advantages may occur when diversified firms are able to create a more efficient transacting environment for inter-business exchanges than exists in the market (Coase, 1937/1991; Chandler, 1962; Alchian, and Demsetz, 1972; Williamson, 1975; Gupta, and Govindarajan, 1986; Fluck, and Lynch, 1999; Freeland, 2001).

A third line of research argues that appropriate governance mechanisms are crucial to the realization of cross-business synergies (e.g., Hill, and Hoskisson, 1987; Hill, Hitt, and Hoskisson, 1992). This line of research theorizes that the corporate center has the most comprehensive information on the needs of the market and the capabilities of the business-units (Galbraith, 1974; Stinchcombe, 1990; Goold, Alexander, and Campbell, 1994). Therefore, the corporate center should be in the best position to identify which synergy initiatives should be pursued. Consequently, it is argued that corporate executives should “parent” potential synergy initiatives between the business-units by deciding which initiatives should be pursued, creating incentives schemes to ensure cooperative behavior, and exercising fiat when necessary to limit debate (Coase, 1937/1991; Ansoff, 1965; Andrews, 1980; 1987; Hill, et al., 1992; 1994; Goold, and Campbell, 1998). Williamson (1975) has similarly argued that strategic decisions such as corporate strategy, planning and the allocation of resources among the business-units should be separated from decision-making at the individual business-unit level and come under the jurisdiction of the corporate center (Freeland, 1996). Otherwise, business-unit general managers will seek to influence corporate strategy in devious ways to promote their own self-interests, which may then jeopardize the realization of corporate synergies (Alchian, and Demsetz, 1972; Williamson, 1975).

In summary, these three diverse lines of research provide persuasive arguments and evidence for the value of the corporation and the existence of cross-business synergies. For

example, the sources of variance in performance literature provides strong evidence that synergies (and dissynergies) do in fact exist. However, these types of studies are indirect in that they observe outcomes, like performance, and then assume that synergies must exist.

Consequently, this line of research provides little insight into the sources of synergy and the processes by which synergies are (or are not) realized within corporations. The literature that focuses on the sources of synergy and internal governance advantages is also well-developed theoretically. However, empirical support in these two lines of research remains limited and is often equivocal (Martin, and Eisenhardt, 2001).

While diverse, these three streams of literature share the economic assumptions of maximization and equilibrium (Nelson, and Winter, 1982). The maximization assumption maintains that there is a global objective function in firms that is focused on a few specific goals like profit, net present value, and earnings per share. In addition, the maximization assumption contends that there is a well-defined choice set, such that managers in multi-business firms have a clear understanding of what the organization can do. Finally, the maximization assumption argues that individuals and organizations are rational. Consequently, managers will make choices to maximize the achievement of the goals of the organization, given the known capabilities of the organization, market opportunities, and other internal and external constraints that may exist. The equilibrium assumption maintains that a model exists such that given one element of the model, another can be determined. The simplest example of how this assumption operates is the relationship between the supply and demand curves. In this example, the economic behavior of individuals (i.e., the price they will pay for an item) is determined by the equilibrium condition of these two curves (Nelson, and Winter, 1982,: 13). These powerful assumptions underlie the reasoning behind theories like transaction cost economics, agency, and

contingency, which are among the most important theories within the synergy literature.

However, while the underlying assumptions outlined above are often valid, they offer an under-socialized view of corporate action that may be overly simplistic in characterizing managers and their actions (e.g., see Granovetter, 1985; Fligstein, and Freeland, 1995; Freeland, 1996). In addition, they implicitly assume that the sources of synergy are relatively stable, and that an equilibrium or near equilibrium condition exists in the market (e.g., for discussion see Nelson, and Winter, 1982). These underlying assumptions become particularly problematic in dynamic market contexts, where the ability of general managers to coevolve their business-units with changes in the market becomes crucial (Galunic, 1994; Eisenhardt, and Galunic, 2000; Galunic, and Eisenhardt, 2001). In these markets, the sources of synergy are likely to change as such markets emerge, grow, split and combine. Therefore, the processes by which managers realign resources to capture changing sources of synergies become crucial (Eisenhardt, and Martin, 2000). Likewise, resources that are more readily transferred and recombined, like knowledge or brand, become important sources of potential synergy (cf. Miller, and Shamsie, 1996).

Several authors have begun to explore the implications of dynamic markets to strategy from a process perspective. In particular, studies by Hargadon and Sutton on knowledge brokering (1996; 1997), Hansen (1999) on knowledge transfer, Galunic and colleagues (1996; 1998; 2001) on patching multiple businesses, Burgelman (1994; 1996) on the emergence of strategy, and Noda and Bower (1996) on processes of resource allocation have taken a process-oriented approach to strategy. However, the research related to cross-business synergy has yet to focus on the processes by which synergies are achieved. This study addresses this gap in the literature and extends the process line of research in strategy by focusing on how corporate value

(i.e., synergy) is captured in dynamic markets.

The primary research question that this study explores is: “How do managers in multi-business firms capture corporate value (i.e., cross-business synergies) in dynamic markets?” An objective of this paper is to extend thinking beyond the static view of corporate strategy, in which corporate value is achieved by pursuing efficiencies, to a dynamic view in which corporate value is achieved by pursuing new combinations of resources to address constantly shifting market opportunities. In particular, we explore how corporate value is created in the context of temporary collaborations among business-units (i.e., cross-business synergy initiatives) in dynamic markets. Therefore, this study complements the implicit emphasis of the corporate strategy literature on achieving synergies through relatively permanent business-unit collaborations (e.g., sharing manufacturing facilities, R&D efforts, or the sales channel).

Given the limited theory and conflicting empirical research related to how managers realize cross-business synergies, the underlying logic of the study is grounded theory building (Strauss, and Corbin, 1990). This involves inducting insights from field-based case data. we chose grounded theory building because of our interest in looking at a rarely explored phenomenon. “In such situations, a grounded theory-building approach is more likely to generate novel and accurate insights into the phenomenon under study than reliance on either past research or office-bound thought experiments” (Brown, and Eisenhardt, 1997,: 2).

The setting for this study is the global software industry. This is an attractive industry for this study because it is a dynamic one in which knowledge-based resources are particularly salient (e.g., Miller, and Shamsie, 1996). The industry includes both new and established multi-business corporations. This is advantageous because such variation enhances the generalizability of the research. Finally, multi-business firms in the software industry are often in both multi-

point and single-point contact with competitors across geographies and product/service offerings. Therefore, they often compete by implementing strategies to influence and/or control industry standards. These competitive factors add to the richness of the synergy opportunities. Consequently, multi-business firms in the software industry are likely to have potential synergies that vary over time and extend across multiple sources of synergies (see Martin, and Eisenhardt, 2001, for a review).

The major results from the study are the theoretical insights that emerged from the data. First, we found that high-performing synergy initiatives originate, often serendipitously, from the business-units, not from corporate. Second, high-performing synergy initiatives are shaped by both planned and unplanned experiments that sharpen the dimensions of the initiative, rather than being shaped through planning processes alone. Third, high-performing initiatives are selected by the business-unit general managers (termed the “multi-business team”) after intense debate that is motivated by self-interest, not dictated by the corporate center and/or encouraged by collaborative financial incentives. Although perhaps an extreme view, the CEO of Bean claimed, “financial incentives are really irrelevant, these general managers want to build businesses, that’s why they’re here.” Fourth, high-performing initiatives are implemented through significant resource reallocations and loosely coupled modular organizational structures, rather than through incremental resource movement and extreme levels (high or low) of coordination.

A primary contribution of this study is new insight into the nature of the corporate effect by clarifying the sources of synergy and explaining the processes for achieving them. In addition, this research suggests that a new unit of corporate governance, the team of general managers (termed “the multi-business team”) that is particularly significant in achieving cross-

business synergies in dynamic markets. Accordingly, this study redefines the role of corporate as one of building the team of general managers, deciding which businesses should be included in the corporate portfolio, and setting the long-term strategy of the corporation. This is in contrast to corporate executives' playing a top-down decision making role in deciding which collaborations should be pursued among businesses in related diversified firms.

Moreover, this research attempts to make a broader contribution to organizational theory by developing a rationale for the M-form that is based on a logic of innovative recombination and coevolution of business units and markets, rather than one of economizing attention or controlling opportunism. Thus, it provides a counterpoint to the transaction costs, property rights, contingency and agency theory perspectives (e.g., Lawrence, and Lorsch, 1967; Thompson, 1967; Alchian, and Demsetz, 1972; Jensen, and Meckling, 1974; Williamson, 1975; Hart, 1989). In addition, this research also attempts to contribute to organizational theory by going inside the organization and describing how organizational change can result from the coevolution of the business-units with changing market circumstances. This provides a more dynamic view of change that suggests that organizations are not simply subject to inertia, isomorphism, or fixed social networks. Therefore, this research suggests a different perspective on organizational change than has been suggested by organizational ecology (e.g., Hannan, and Freeman, 1977; Carroll, 1984), institutional theory (Meyer, and Rowan, 1977; DiMaggio, and Powell, 1983; Selznick, 1996), and social network theory (Burt, 1980; Krackhardt, 1990; Powell, and Smith-Doerr, 1994), in that it illustrates how managers within corporations can coevolve businesses with one another and with markets. Overall, the corporation more closely resembles a complex adaptive system such as a “dynamic community” (Galunic, and Eisenhardt, 2001,; 1243).

This research also makes a broader contribution to theories of strategy by focusing on how advantage is derived from continually seeking new opportunities, rather than on assembling resources, establishing sustained positional advantages, or exploiting resource similarities. This research confirms how processes that reconfigure resources to exploit new opportunities (termed “dynamic capabilities”, see Teece, Pisano, and Shuen, 1997; Eisenhardt, and Martin, 2000) may, in dynamic markets, offer a more important source of competitive advantage than strategies to exploit or protect existing advantages. In addition, this research encourages a view of resource relatedness that focuses on complementarities as well as similarities among value chain dimensions, which can be an important source of value as markets evolve (e.g., Davis, and Thomas, 1993; Larsson, and Finkelstein, 1999). Finally, this research offers possible contributions to theories of entrepreneurship by showing how managers capture opportunity within the corporation through processes of discovery and exploitation of opportunities that emerge to put resources within the organization to more productive use (e.g., Schumpeter, 1934; Penrose, 1959; Kirzner, 1997; Shane, 2000). Overall, this research suggests insights into the strategic logic of opportunity capture as new synergies emerge from the coevolution of the businesses with one another and with shifting markets.

We begin by discussing the inductive theory building through the multiple-case method that is used in this study. Second, we describe the data, results and insights that emerge from the data. Finally, we conclude by tying these results and insights to the broader agenda of exploring how corporate synergies are realized in dynamic markets through processes that may best be characterized as corporate entrepreneurship, and then provide some conclusions for this work.

Methodology

This chapter discusses the inductive, multiple-case study methodology that we used in this research. We will first describe the exploratory work and research strategy that is used in this dissertation. We will then introduce the research setting. Next, we will describe the data collection methods. Finally, we will recount the iterative process used to analyze these data and induct the theoretical framework that is the primary result of this dissertation.

Research design

The research design is a nested, comparative case study of six multi-business corporations. As described above, given the limited theory and empirical research on this topic, this study uses an inductive, multiple-case design to examine cross-business synergies (Eisenhardt, 1989a; Yin, 1989; Strauss, and Corbin, 1990). This methodology allows a replication logic, in which a series of case studies are treated as a series of experiments, with each case serving to confirm or disconfirm the inferences from the others (Yin, 1989; Yin, 1993). In addition, this study employs an embedded design. That is, it focuses on multiple levels of analysis: individual cross-business synergy initiatives, multi-business team, business-units within the corporation, and the corporation. While complex, this embedded design facilitates a richer and more reliable process of inductive theory building than a single-level design (Yin, 1989; Yin, 1993).

Within each corporation, two cross-business synergy initiatives are examined, one which managers regard as high performing and one they regard as low performing. As noted earlier, synergy initiatives are defined as any collaborative activity between business units that is intended to create value by reducing costs (e.g., creating economies of scope or realizing efficiencies), keeping prices high (e.g., exercising market power), or recombining resources into

new value-creating strategies that a single business competitor cannot realistically accomplish. For example, joint technology development, coordinating moves in the market, or sharing the costs of a probe into a new market space would both be considered cross-business synergy initiatives. Initiatives may or may not become permanent collaborations. Therefore, the focus on synergy initiatives in this research provides a complement to the traditional view of corporate synergies that assumes that value is derived from relatively permanent collaborations like sharing manufacturing facilities or a sales force.

The data collection centers on semi-structured interviews with over 80 corporate executives, including all the general managers of business-units and at least one senior corporate executive. The data are both qualitative and quantitative. These interviews are supplemented with secondary data to create six detailed corporate-level cases and 12 nested case studies of synergy initiatives.

The research includes six global corporations, two each in three market sectors of the software industry. All corporations are publicly held, multi-business companies (one is a corporate group), each with 2-5 business-units. We use three main criteria to define a corporation as multi-business: First, the business-units must be separate organizational entities that offer distinct products and/or services, such that customers have the option of distributing their purchases of related products and services among the business-units of the focal firm and its competitors. For example, Intuit would be categorized as a multi-business firm because it is organized into three separate units and its customers can purchase products like personal financial management software from them and still buy competitors' tax preparation and/or legal assistance software. Second, the business-units must control the allocation of resources and people within their organization. Finally, the business-units must have some independent

financial objectives (e.g., ROI, ROS or other proxy for profit).

This definition of a multi-business organization is finer-grained and more organizationally-based than measures that have typically been used in prior studies of diversified firms, like those derived from SIC codes. For example, SIC-based measures may lump together several distinct businesses that bear little relationship to each other. Likewise, they may miss important complementarities among other value-chain dimensions. For example, as Davis and Thomas (1993) noted in their study of the pharmaceutical industry, agricultural chemicals and pharmaceuticals are categorized in the same two-digit SIC code due to historic similarities in the production function, but are typically unrelated in the marketplace (e.g., see Davis, and Thomas, 1993). In contrast, they also note that pharmaceuticals and medical instruments, which are industries that have unrelated production functions but strong similarities in the sales channel, have different SIC code designations.

Table 1 describes the six firm-level cases used in this study. The corporations are divided into three industry pairs, with two corporations in each of the consumer, enterprise, and infrastructure software markets. Consumer firms are those that primarily sell their products to individuals. For example, by this definition, Adobe is a consumer software firm as it sells software products like PhotoShop©, Acrobat©, and Framemaker© to individual users. Enterprise firms are those that primarily sell software to corporations for enterprise computing on mainframe computers or for corporate networks that service the individual enterprise. The end users of enterprise software are typically corporate personnel who work in business areas like human resources, order fulfillment, logistics, and finance. Peoplesoft is an example of an enterprise software firm. Similarly, infrastructure software firms are those that sell software to corporations that is used to enable other applications, like electronic commerce, or embed within

devices, like network appliances and disk drive systems (infrastructure software is also sometimes referred to as ‘middleware’). Accordingly, the end users of infrastructure software are typically highly trained engineers. BEA, a company that sells software that enables web-based services, is an example of an infrastructure software firm. This sampling strategy of different markets and different customers helps to create more generalizable results. The corporations range from established organizations that were founded as early as 1967, to entrepreneurial organizations that were launched as recently as 1995. The inclusion of this range of ages further enhances the generalizability of the results.

Insert Table 1 About Here

The entry into each firm began with one to four interviews with corporate executives, including the CEOs and/or their designated liaisons. These interviews served several purposes. First, they were used to describe the study, gather background information on the organization, and to confirm the fit of the organization with the selection criteria of the research design. Second, they were used to acquire corporate executive sponsorship and gain logistical support for scheduling interviews. Third, they were used to identify business executives and other key informants to be interviewed. Finally, since synergy initiatives are typically not tracked by accounting methods or reported to the public, and are usually parts of a broader strategy, these entry interviews were used to identify two synergy initiatives for further study – one that managers regarded as high-performing and one that was regarded as low-performing.

In the entry interview, managers were asked to suggest recent initiatives that were in progress or completed in the last six months. Recent initiatives were requested so that informants could adequately recall initiative details. This yielded between four and six

initiatives within each firm. Managers were then asked to rate each initiative on a 10-point Likert scale. The highest- and lowest-rated initiatives were then selected and carried forward to the subsequent interviews. The performance ratings collected during the entry interviews were later corroborated by informants' quantitative ratings of performance, qualitative assessments, and financial and other outcome measures mentioned in the subsequent interviews. This sampling of synergy initiatives by "polar types" makes the constructs and relationships of interest in these organizations more "transparently observable" (Strauss, 1987; Strauss, and Corbin, 1990). These entry interviews provided the background and focus necessary to effectively conduct the formal semi-structured interviews that are the core of this study.

As we defined earlier, a synergy initiative is any collaborative activity between business-units that is intended to create value that a single-business competitor cannot realistically accomplish. For example, Symbol's single-business competitors were not able to compete with Symbol's high-performing initiative that bundled multiple business-unit products together from different product market segments. This initiative had the combined effect of overcoming a competitive threat in Symbol's largest market segment and achieving overall dominance in all the product market segments that were included in the bundle. As one general manager at Symbol related, "Well I mean the initiative is actually hugely, was hugely successful...We've basically taken out a competitor who ...was threatening to put us away."

Table 1 lists the 12 synergy initiatives (which will be described in greater detail below) that were observed. Note that no particular type of synergy initiative is always associated with either high or low performance. Also, each initiative was roughly the same size, with between eight and 17 full-time-equivalent employees (FTEs) allocated to it, and had approximately the same duration of six to twelve months. In addition, each initiative had about the same

complexity, with all but one of the 12 initiatives involving all the business-units (Autumn's high- and low-performing initiatives involving 3 of the 5 business-units). That is, within each corporation, the same number of business-units participated in both high- and low-performing synergy initiatives. These observations are consistent with the view that the differences between high- and low-performing synergy initiatives are related to organizational factors, rather than to specific characteristics (e.g., size, complexity, duration, and type) of the initiatives themselves.

Data collection

I collected data through interviews, questionnaires, and secondary sources. The primary data source was semi-structured interviews with individual informants. The informants for the formal semi-structured interviews included approximately eight to fourteen individuals from each firm or corporate group, for a total of over 80 interviews. There were three levels of informants. Specifically, the informants included all the business-unit general managers and at least one corporate officer (e.g., CEO, President, COO or other TMT member) in each firm. In addition, two additional informants from the businesses who were directly involved in one or both of the focal synergy initiatives were also interviewed. Each business-unit was represented by at least one within business-unit informant. These additional informants were typically a director-level manager or other senior person directly reporting to the general manager of the business-unit.

The interviews were semi-structured, where the discussion was guided by a series of closed-ended questions to gather specific information and open-ended questions that allowed the informant to relate his or her view of the evolution of the synergy initiatives. The first half of the interview began by asking for background information on the informant and his or her organization (i.e., the firm in the case of the corporate executive, the individual business units in

the case of others). The informants were then asked a series of open-ended and closed-ended questions about the competitive environment in which their organization operates (e.g., the rate of market change, number of competitors, their effectiveness, strategic challenges, and strengths). This was then followed by a series of open- and closed-ended questions about how the business-units and their managers relate to each other and the corporate center. Quantitative data were gathered on power, communications patterns, relative revenue contribution, interdependencies, roles, incentives and the managers' ratings of each other's and their own business-units' performance. In addition, data were also collected about the sources of potential synergies among the businesses, and the degree to which these potential synergies have been pursued.

The second half of the interview focused on the history of the two focal synergy initiatives in each firm, one perceived as high-performing and one as low-performing. Informants were asked to relate the story of the synergy initiative as they observed it, supplemented by probing questions from the interviewer (Galunic, 1994). A "courtroom" procedure was used, in which questions concentrated on facts and events rather than on respondents' interpretations (Eisenhardt, 1989a). Three phases of each focal synergy initiative were explored: First, informants were asked to describe how the initiative began: how it was identified, the key people involved and what they did, and the support (or lack of support) that the initiative initially had. Second, they were asked to describe the evolution of the synergy initiative in terms of the actions of individual managers (e.g., changes to resources, people, and/or the organization that occurred). Third, they were asked to describe the results of the initiative in terms of its performance, how the initiative is currently perceived, and any structures and processes that are still in place related to the synergy initiative.

Three interview guides were used in the semi-structured interviews: one for the corporate executive; one for business-unit general managers; and one for the within business-unit informants. Prior to each interview, the interview guide was prepared (e.g., filling in known factual information such as publicly available revenue numbers) to help focus on those sets of questions that were relevant to the specific role of the informant. For example, corporate executives were asked to identify the overall competitive strategy for the business while business-unit general managers were asked to describe the strategy of their specific business-unit. Similarly, business-unit general managers were asked to rate the performance of their sister business-units, a question that was not asked of the within business-unit informants (unless their role gave them a clear corporate perspective). All of the semi-structured interviews were recorded and transcribed, most within 24 hours of being conducted. Interview data were supplemented with follow-up emails and phone conversations and archival data from annual reports, company websites, press releases, and industry analyst reports.

Data analysis

As is typical in inductive research, we analyzed the data by first building individual case studies and then comparing across cases to construct a conceptual framework (Eisenhardt, 1989a). Upon completion of all the interviews for a particular firm, the interview summaries and transcripts, along with the supplementary data, were synthesized into a case study that included the two focal synergy initiatives that were explored in each firm. These cases ranged between 50 and 90 pages in length. Each case study began with the background of the firm, its business model, its organizational structures and the product/market contexts in which it competes. This was followed by a description of the organizational arrangements, internal environment, and relationships among the senior managers. Finally, detailed histories of the two focal synergy

initiatives were developed. As a check on the emerging case stories, a second researcher read through the original interviews and formed an independent view of each case. We then used this view to crosscheck the emerging story. The case-writing process took about five months to complete.

The cases were used for two types of analysis: within-case and cross-case analysis (Miles, and Huberman, 1984). We had no a priori hypotheses. Within-case analysis focuses on describing events experienced during each synergy initiative, and then developing generalizable constructs and relationships about synergy initiative processes and the relationships among the business-unit general managers. Cross-case analysis looked for the presence of the constructs and relationships among constructs across multiple cases and examined whether similar themes emerged in multiple settings (Miles, and Huberman, 1984; Eisenhardt, 1989a). We created tables and graphs to facilitate further comparisons, and compared successive pairs of cases for similarities and differences to develop the emerging constructs. With each iteration we used new permutations of case pairs to refine the conceptual insights. The nested design of this study provided a particularly rich setting in which to examine these themes across multiple dimensions within and between synergy initiatives and the firms themselves. Multiple cases and synergy initiative histories thus allowed a “replication” logic (Eisenhardt, 1989a; Yin, 1989) in which each case was treated as an experiment to test the emerging theoretical constructs. The analysis and data collection were conducted with an iterative process between data collection, theory building and the literature until a strong match between the data and theoretical framework emerged. However, as in deductive research, that match is not a perfect one.

Realizing Cross-Business Synergies

Several insights emerged that linked high-performing cross-business synergy initiatives with a set of organizational processes and structures that are related to realizing corporate value in dynamic markets. As we defined earlier, cross-business synergy initiatives are “any cooperative activity between business-units that is intended to create value by reducing costs (e.g., creating economies of scope or realizing efficiencies), keeping prices high (e.g., exercising market power), or recombining resources into new value-creating strategies that a single business competitor cannot realistically accomplish” (Martin, and Eisenhardt, 2001,: 3). Three primary results emerged from the data.

First, we observed five types of synergy initiatives in the data: bundling, common feature, standard platform, new business collaboration, and shared services. Bundling is the combination of two or more products from different business-units that are then sold for a price less than the sum of their standalone prices. The economic rationale behind bundling is to build market share and revenue. Common feature is the development of a specific product feature by two or more business-units together that then becomes part of their respective products. For example, IBM has developed common features in its mainframe micro code, operating system, and database software products that improve the reliability of these products when used on IBM hardware. The economic rationale is that common feature initiatives enable faster and cheaper product development, and provide additional functionality when the products involved are used cooperatively, which in turn makes the set of products more attractive to customers.

Standard platform initiatives involve the development of a product on which products from multiple businesses and perhaps outside companies will reside (e.g., Microsoft Windows is a standard platform on which products like Microsoft Word and Netscape reside). Revenue is

then driven by the sale of the products and possibly the platform itself. The economic rationale is to exploit market power by creating an industry control point, to realize economies of scope by lowering development costs, and to realize economies of growth by speeding time to market.

New business collaboration is a recombination of resources from several existing business units to create a new business venture for the corporation. The economic rationale is to increase revenue and/or profit by putting corporate resources to a more productive use. Shared resource initiatives involve the creation of specific corporate services that are used by several businesses (e.g., a shared sales force). The economic rationale is cost savings through economies of scope and scale.

The second result was the confirmation that there were major differences between the high- and low-performing synergy initiatives in this study. We assessed the performance of these synergy initiatives in several ways. First, during the formal semi-structured interviews, we asked informants to rate the initiative in terms of its overall effectiveness using a 10-point Likert scale. We then averaged these scores across two categories of informants for each case (corporate executives and general managers). Second, we also gathered qualitative assessments of initiative performance from the interviews. Positive comments like, “Well I mean the initiative is actually hugely, was hugely successful...we’ve basically taken out a competitor who...was threatening to put us away,” were interpreted as strong indications of a high-performing initiative. Likewise, comments like, “Chariot was a complete bust!” were interpreted as strong indications that the initiative was low-performing. Finally, we assessed the financial and other market results, if any, of the initiative. For example, the new business collaboration initiative at Dataman generated \$170 million in revenue its first year and is on track to generate \$450 million this year. It also successfully closed down an emerging competitor. Table 2 summarizes this combination of

qualitative and quantitative data, which creates a more robust assessment of performance than either data type alone.

As indicated in Table 2, the evidence suggests that there were substantial differences between high-performing and low-performing initiatives within firms. Within the cases, high-performing synergy initiatives were consistently rated higher on a 10-point Likert scale than low-performing synergy initiatives by corporate executives and general managers (8-12 managers per case). For example, the high-performing common feature initiative at Vertical was rated eight points higher by both the corporate executive and the general managers than the low-performing common feature initiative. In addition, high-performing initiatives realized success in the market, in terms of impact on the competitive position of the company, meeting product release schedules, revenue generation and/or increases in market share. As the CEO at Bean related, “Falcon shaped the very nature of our company and has become one of the key growth engines around which a number of products have been developed.” In contrast, low-performing initiatives had failed to achieve any financial or market result (e.g., no revenue effects, missed schedules, or failure to perform in the market).

Insert Table 2 About Here

The third and most significant result is the theoretical framework that emerged from the data. In attempting to understand the differences between the high- and low-performing synergy initiatives, we observed, first, that high-performing synergy initiatives originate from within the businesses, not at the corporate center. Second, high-performing initiatives are based on experimentation, not visions or planning alone. The experiments provided concrete experience that clarified important factors like resource requirements and potential financial results. Third,

there was an engaged multi-business team decision process to select the initiative and construct an implementation strategy. This is in contrast to a top down corporate decision process with low general manager engagement that characterized low-performing initiatives. That is, in the cases of high-performing initiatives, there was often a high level of agreement among the general managers on doing the initiative, while at the same time a high level of disagreement on the specific means of the implementation. Finally, high-performing initiatives were characterized by significant resource reallocations, modular organization, and loose coupling (i.e., a *strong organization implementation*), instead of cross-unit teams with either too complex or too simple coordinating structures. In the following sections, we describe these results further and present their empirical grounding.

Business-unit origin

Previous research suggests that the corporate center should be the origin of high-performing cross-business synergy initiatives as this is where the locus of corporate value creation and loss prevention resides (Chandler, 1991; Hill, et al., 1992; Collis, and Montgomery, 1997). The logic is that the corporate center has the most comprehensive information regarding the needs of the market, and the resources and capabilities of the business-units. Consequently, corporate executives are in the best position to deliberate and choose appropriate synergy initiatives (i.e., ones that match the competencies of the business-units and the market opportunities) (Barnard, 1938/1968; Selznick, 1957; Ansoff, 1965; Andrews, 1980; Prahalad, and Hamel, 1990; Goold, et al., 1994). In contrast, business-unit general managers are assumed to be less informed and subject to opportunism (Coase, 1937/1991; Williamson, 1975). Therefore, theory would predict that they are likely to be a poor source of synergy initiatives.

However, the evidence from this study suggests an alternative view (see Table 3). We observed that all of the high-performing synergy initiatives in this study emerged from among the business-units. That is, business-unit people were the origin of these initiatives. In contrast, the corporate executive(s), alone or with others, initiated all of the low-performing synergy initiatives. Furthermore, unlike the high-performing initiatives, these initiatives were the result of active search. We defined origin as the person or persons within the corporation who first identified the synergy opportunity. We assessed the origin of the synergy initiative from the cross-business synergy initiative stories that were told by the informants. As indicated in Table 3, over 80% of the corporate executives and general managers identified the origin of the initiative. Moreover, all respondents who identified the origin in a given case agreed on the origin, including the unit in which it occurred.

Insert Table 3 About here

One illustration is Bean. Here, the high-performing synergy initiative emerged from one business-unit (BU). A large customer lobbied managers in one business-unit for a “personalization” feature in the software product that Bean was implementing for them. The engineer, who was assigned to the task, enlisted help from an engineer in another business-unit, whose products could also benefit from a “personalization” feature, to develop a simple prototype. As the corporate executive said when describing the origin of the initiative, “a major customer wanted personalization. Sally (the project leader) really pushed and got a couple of engineers assigned to start prototyping and build a very simple example of the personalization feature.” Thus, the origin was an engineer within a business-unit.

Another illustration is Vertical. Here, the high-performing initiative emerged from within two business-units. Through their interactions with customers at an industry conference, Vertical's engineers realized that by extending the features (i.e., the technology and associated application interfaces) of their respective individual products that they could make their products more desirable to customers individually and even more so when used in combination. As one general manager said when describing the source of the initiative, "it was really a groundswell...the engineers from the two business-units...figured this thing out...and they just started meeting" (GM, Vertical). In this case, small groups of 3 and 4 engineers in two of the business-units were the origin of the initiative.

Similarly, the high-performing synergy initiative at Adlib originated from the creative solution that a European manager pursued to deal with a tight marketing budget. His solution was to concentrate his marketing efforts on fewer marketing programs by bundling products together from multiple business-units. Likewise, the high-performing synergy initiative at Dataman originated with the general managers of the business-units, who decided that the best way to address a common threat in the market was to form a new business-unit.

In contrast, the low-performing synergy initiatives were originated at the top of the organizations. An example is Bean, where the origin was a corporate executive. The president called his general managers and other members of the top-management-team together for an all-day weekend meeting. He articulated a vision for the next great technology that the company would develop to drive their next growth wave. The president then directed his general managers to begin an initiative to define the technical specifications and start development of their elements of the new technology within their respective business-units. As a general manager related, "John said we need something new in this company," and he then said, "I think

I know what it's going to be, and I am going to call it Phoenix. I have a vision for how we will create an integration solution that is substantially different from anything that is out on the market today.”

At Vertical, the low-performing initiative was first identified during a brainstorming session among corporate executives, which also included the general managers and chief technical officers of the two business-units. This brainstorming session was held with the explicit purpose of identifying specific synergy initiatives that could be pursued between the business-units. As a CTO who participated in the discussion related, “Well, corporate triggered it initially...it was a corporate executive team edict that we needed to do Chariot.” Chariot was thus selected from a set of possible projects that were generated by the discussion of corporate executives with senior business-unit leaders.

One reason why high-performing synergy initiatives originated within the business-units may be that there are simply many more people to think of projects and many more possible cross-business projects at this level from which to select initiatives. Specifically, if the corporation is pursuing a strategy of related-diversification, there is a likelihood that some of the business-unit level projects will have potential synergies with their sister business units. Since there are numerous projects going on within business-units at any point in time, this number of possible projects is likely to be significant (whether or not they are good opportunities is not the question at this point). In contrast, since there are far fewer corporate executives than business-unit people, the pool of possible cross-unit projects at the top of the organization is likely to be smaller. Consequently, the sheer number of potential cross-unit projects among the business-units, as compared to the corporate level, may lead to higher quality initiatives overall. This argument is consistent with the importance of variation in evolutionary theory (Aldrich, 1999;

Campbell, Baum, and McKelvey, 1999).

Another reason why high-performing initiatives originated from the business-units may be that individuals in the business-units are more in touch with the needs of the market and the capabilities of the business-units than corporate executives. High-performing synergy initiatives in this study emerged from within the businesses and were *discovered* by the managers who, using their knowledge of the changing market and capabilities of their businesses, identified them as having value-creating potential. This suggests that the information processing capabilities of the corporate center simply could not keep up with the evolution of the market and its structure and the changing capabilities of the business-units. Therefore, in dynamic markets, the locus of the most comprehensive information may shift from the corporate level to the level of the business-units, which are in more direct contact with the changing nuances of the market. This, in turn, may have resulted in a closer initial fit between business-unit resources, capabilities, and market opportunities than those initiatives that originated from a few individuals at the top of the organization. Consequently, while corporate executives may be a good source of high-performing synergy initiatives in relatively stable market contexts (e.g., Ansoff, 1965; Andrews, 1980; 1987; Goold, and Campbell, 1998), they were not in the dynamic software industry.

The emergence of high-performing synergy initiatives from the business-units is also similar to results found by Minzberg and McHugh (1985) in their study of the National Film Board of Canada and Burgelman (1994; 1996) in his study on the emergence of strategy at Intel. These authors observed that strategies were not planned at the top, but rather they spontaneously emerged in different areas of the organization. Furthermore, the emergence of strategies in their cases, as in mine, also had an element of serendipity. That is, they were dependent on particular

activities within the business-units that by chance had a unique fit with shifting market circumstances, which could not have been predicted a priori. However, the emergence explanation offered by these previous studies only addresses the flow of information from the perspective of the individual business-unit (cf. Bower, 1970; 1986; Burgelman, 1996). Thus, one contribution of this result is an illustration of how strategies can also emerge from the information flow between several business units.

In contrast, there are several plausible explanations, which do not fit our data. Some alternative explanations for the business-unit origin of high performing synergy initiatives are that they were just smaller, less complex, or less strategically important than those initiatives that were low-performing. However, there was little systematic variation along these dimensions. For example, all the initiatives were similar in size, with each one having between eight and 17 full-time-equivalent employees (FTEs) allocated to it. Their durations ranged from six to twelve months. Likewise, the initiatives involved the same number of business-units in each company, which suggests that they all had similar levels of complexity. Moreover, there appeared to be no systematic variation in the strategic importance of the high- and low-performing synergy initiatives. On the one hand, the high-performing new business collaboration initiative at Dataman had a high initial level of strategic importance. In this case, general managers' and the corporate executive described the purpose of this initiative as being essential to protecting the future of the core products of the other business-units from a significant competitive threat. On the other hand, the low-performing shared services initiative had little if any strategic significance as this initiative was described by general managers' and the corporate executive described this initiative as primarily offering some cost savings. Likewise, the high-performing bundling initiative at Adlib had little initial strategic importance. This initiative was initially

intended to provide some moderate increases in revenue and customer base. However, it turned out to have a very significant effect on market share as well and thus ultimately became very strategically important. Quite the reverse, Adlib's low-performing standard platform initiative had very high initial strategic importance. This initiative was intended to create an industry control point that could be exploited by multiple business-unit projects. But, it has now been scaled back significantly and is now expected to have a much less significant market impact. In contrast, both the high- and low-performing initiatives at Vertical had moderate strategic importance, while both the high- and low-performing synergy initiatives at Autumn were considered very strategically important from the outset.

There also appeared to be no systematic bias on the part of corporate executives or general managers in identifying themselves or their business-units as the origin of high- or low-performing synergy initiatives. For example, the corporate executive at Dataman identified himself as the source of their low-performing synergy initiative and rated it as a "4" on a 10-point Likert scale. Similarly, the corporate executive at Bean identified a business-unit as the source of their high-performing initiative and rated it a "10" on a 10-point Likert scale. These factors suggest that the results are not attributable to executives' taking credit for success and blaming others for failure. This may in part be due to the fact that these types of initiatives are simply one of many activities that are reviewed at the business-unit and/or corporate level. Consequently, there is much less reason for corporate executives and general managers to identify their individual performance with any one of these specific activities. Overall, there is little, if any, support for these alternative explanations for why the high-performing synergy initiatives in this study always had a business-unit origin.

In summary, high-performing synergy initiatives in this study were the result of the

entrepreneurial response of business-unit managers to new opportunities for synergy that occurred among the business-units (e.g., a customer request, technological innovation or organizational change). These changes created opportunities to exploit new cross-unit combinations of resources and capabilities that were either not readily apparent or were non-existent during the typical corporate and business-unit level planning and budgeting processes. Otherwise, corporate executives and general managers perhaps would have been able to use their foresight to identify, select, create and plan these cross-unit initiatives effectively. Managers were not specifically looking for the high-performing initiatives in this study, rather they were *discovered* from among the numerous ongoing business-unit activities. In contrast, low-performing initiatives were the result of a high-level search for synergy. These results are consistent with the market process approach of Austrian economics to the realization of corporate value through entrepreneurial discovery, disequilibria, heterogeneity and unobservable factors (cf. Jacobson, 1992; Kirzner, 1997). Moreover, these results extend the market process approach by providing an illustration of these processes inside the corporation and across the business-units. In formal terms, this suggests the following relationship in dynamic markets:

Proposition 1: Business-unit origin yields higher-performing cross-business
synergy initiative

Experimentation

Previous research suggests synergy opportunities are apparent and even obvious to corporate executives. Therefore, initiatives to realize synergies can be rationally planned (Ansoff, 1965; Andrews, 1980; 1991; Goold, et al., 1994; Besanko, et al., 2000). This capability to rationally plan initiatives is theorized to be facilitated by the corporate staff, whose role is to analyze information about the market and the capabilities of the business-units (Chandler, 1962;

Ansoff, 1965; Williamson, 1975; Goold, and Campbell, 1987; 1991; 1994). Moreover, explicit planning processes, rather than experimentation (or “haphazard guesswork” Miller, and Cardinal, 1994, : 1649) have also been argued to produce better outcomes, as planning is believed to be faster and less error prone than “trial and error” modes of learning (Ansoff, 1991). In addition, some scholars have argued that formal planning processes become more important as the degree of change increases (e.g., Armstrong, 1982). Therefore, some previous research and theory suggests that strategic activities among the business-units, like cross-business synergy initiatives, are best developed through formal planning, and that formal planning is best conducted by the corporate center.

However, the evidence from this study suggests an alternative view (see Table 4). What emerged from the data was that high-performing synergy initiatives were based on some type of experimentation. This experimentation produced concrete information about the potential initiative, and its fit with current market and technical opportunities (e.g., features, customer value, pricing, etc.). These specific characteristics and their fit were difficult to see a priori and as a consequence, some type of learning was necessary to optimally align the structure of the initiative with changing nuances in the market. In contrast, low-performing synergy initiatives were structured through planning alone.

Experiments are activities, which are conducted prior to finalizing initiative resource allocation and generate learning about the initiative in a systematic way. Planned experiments are typically small, low cost, short duration activities like focus groups, technology prototypes, and customer surveys. Unplanned experiments are past activities that are treated as past hoc learning activities that are reflected on by managers, prior to finalizing initiative resource allocation, in a systematic way with the express purpose of generating learning.

I assessed experimentation from the cross-business synergy initiative stories that were told to me by informants. Experiments produced concrete information directly related to the potential effectiveness of the initiative and that occurred prior to finalizing the allocation of resources to the initiative itself. Without this latter condition, the learning generated from the activity would likely have little material effect on the amount, source and type of resources allocated to the initiative.

One illustration is Adlib. In this case, a maverick European sales organization decided to stretch a tight marketing budget by bundling products together for advertisers. Surprisingly, this resulted in a major increase in sales. This then caught the attention of the business-unit general managers when issues arose about how to properly allocate revenues back to the businesses whose products were included in the bundle. These managers then used this success as an unplanned experiment from which they gathered lessons for the initiative as to the potential that a formal bundling initiative might have for increasing revenue and market share. The business-unit general managers then decided to formally experiment with this opportunity to further determine the specific features and market potential of the initiative. As one general manager said, “the test was...we put together a bundle in North America...and the test went well...so we [the general managers] said, hey, it’s a good idea to go ahead and do this.” The Adlib general manager went on to describe how they experimented with different brand names, bundling composition, user interfaces, and documentation, using focus groups and regional trials. These efforts provided them with the market information that they needed to decide which specific products should be included in the bundle, what additional product development was required to put the different business-unit products into a coherent whole, and how revenues would be allocated back to the business-units.

Another illustration is Vertical. In this case, the CTO of a business-unit was the origin of this initiative. He saw that not only could his product benefit from a new feature, but that a product in a sister business-unit could as well. Moreover, the CTO believed that the additional enhanced functionality of using both products together would be more attractive to customers. In this case, the initiative unexpectedly benefited from a recently failed initiative that was in progress. This earlier attempt at a different common feature initiative yielded a variety of lessons for managers regarding the subsequent high-performing common feature initiative. These lessons included the importance of creating a dedicated implementation team and of conducting a formal pilot. As one general manager said, “we used Chariot (a low-performing initiative) as a comparison of how not to do it when we created Knight.” A second experiment was a formal pilot that was led by the chief technical officer of one business-unit. He had two development engineers in each of the two business-units test different coding architectures to understand better their effects on the functionality of the common feature. As the CTO related, “the engineers in the business-units designed it and wrote it up a bit.” This piloting effort further helped to clarify the resource requirements necessary to formally implement the common feature in the products of the two business-units.

Insert Table 4 About Here

A third illustration of experimentation is Bean. Their high-performing initiative resulted from a common feature that a major customer wanted in several products. The business-unit engineers decided to prototype their high-performing common feature initiative for this customer. As the CEO related, “our services business-unit and a couple of developers from the platform business-unit got together and developed a prototype for one of our large customers.”

This prototype resulted in a clearer understanding of the broader market opportunity that the initiative represented and the resources that would be required to effectively pursue it. Similar scenarios were observed in each of the high-performing synergy initiatives in this study.

In contrast, the low-performing synergy initiatives did not have experimentation. Rather, they were created through planning discussions that were conducted between corporate and the general managers of the business-units. One illustration is Vertical. In this case the low-performing synergy initiative was created in a planning session sponsored by the corporate executive, and which included the general managers and the chief technical officers of the business-units. As a chief technical officer related, “we had several discussions...and Chariot just proceeded from there.” The senior leadership (i.e., the corporate executive, general managers, and chief technical officers) believed that they understood the resources and capabilities of the two business-units, and the needs of the market. They could, therefore, effectively select and structure a cross-business synergy initiative without the benefit of market pilots, technical prototyping, or other experiments.³

Likewise, no experiments were performed for the low-performing synergy initiative at Adlib. This initiative was based on the vision of a corporate executive for the creation of a standard platform. The corporate executive envisioned an opportunity to create an industry control point. The corporate executive then led a series of planning sessions that resulted in different parts of the initiative being delegated to each of the business-unit general managers. They, in turn, initiated projects and allocated resources to pursue their respective parts. Similarly, at Autumn, the low-performing initiative was simply assigned by the corporate executive and general managers to an existing project team within one of the business-units. Again, no experimentation took place prior to this final commitment of resources.

Why do experiments relate to high-performing cross-business synergy initiatives? One reason may be that experiments lower risk and uncertainty associated with launching synergy initiatives by providing highly relevant and current information about market, technology and internal organizational issues quickly and at low cost. These results are consistent with findings in the emerging real options literature, in that experiments lower risk and resolve uncertainty by providing the option (i.e., the right, but not the obligation) to pursue specific aspects of the initiative and the initiative itself (e.g., Bowman, and Hurry, 1993; Folta, 1998; Kogut, and Kulatilaka, 2001; Reuer, 2001). Accordingly, real options, like experiments, have increasing value under conditions of increasing uncertainty (McGrath, 1997) in the selection and shaping of potential cross-business synergy initiatives. In addition, experiments reduce the risk of incorrectly choosing new resource combinations among the business-units (e.g., Kogut, and Kulatilaka, 2001), which may be argued to have been a factor in the low-performing initiatives in this study.

A second reason is that experimentation is faster, produces higher quality initiatives and helps form the basis for establishing social relationships among the business-units. Similar to studies of product development, where prototyping, probes and other forms of real-time learning are essential, experimentation prior to final resource allocation is more effective and faster than planning alone (Pisano, 1994; Eisenhardt, and Tabrizi, 1995; Miner, Bassoff, and Moorman, 2001). Experimentation provides the “high fidelity feedback” (Pisano, 1994, : 86) that comes from “learning-by-doing” that is required to effectively construct initiatives in dynamic markets where knowledge is inherently weak. In addition, experimentation provides opportunities for improvisation (e.g., Eisenhardt, and Tabrizi, 1995; Miner, et al., 2001) among individuals from the different business-units. This not only improves the fit of the initiative with current market

conditions, but helps develop social experience between individuals from different business-units as well. Taken together, these factors may also serve to build confidence in the initiative and its potential for success in the market.

Finally, cross-business synergy initiatives are inherently more complex than within-business unit activities, like product development, which take place in the same task and social environment. Consequently, these cross-unit activities are almost unavoidably conflictual. Real-time experimentation may help lower their inherent conflict by grounding the initiative decision process in facts and the collective experience of working together, which in turn may help build common understanding and trust between the businesses (cf. Eisenhardt, 1989b; Dougherty, 1992). This is likely to reduce some of the antecedents of affective conflict, while at the same time providing a basis for effective task conflict (cf. Jehn, 1995; 1997). This context of trust, common understanding, and agreement appears to be a necessary precursor to the high engagement decision process that is characteristic of the high-performing synergy initiatives in this study, which is discussed later.

Why might these results differ from the literature? One reason may be that much of the existing research related to corporate-level planning has been conducted in relatively stable market environments, like traditional manufacturing industries, in which physical rather than knowledge-based resources are most salient (e.g., as observed by Miller, and Shamsie, 1996). In stable industry contexts, where the effective use of capital-intensive assets like plants and equipment are inextricably connected to the output value of these firms, careful long-term planning is needed to efficiently procure and deploy these types of resources. Accordingly, in these environments in which uncertainty is relatively low, planning before doing appears to be positively related to performance (e.g., Ansoff, 1991; Miller, and Cardinal, 1994). However, in

dynamic or high-velocity environments like the software industry, the learning that experimentation yields appears to be much more advantageous than planning alone (e.g., Pisano, 1994; Eisenhardt, and Tabrizi, 1995; Miner, et al., 2001).

Why does corporate seem to forgo experimentation for initiatives that they originate? It may simply be that corporate executives assume that they have sufficient information to make the resource allocation decisions necessary to implement an initiative. This seeming overconfidence is similar to descriptions of CEO “hubris” (e.g., Roll, 1986; Hayward, and Hambrick, 1997; Goold, and Campbell, 1998). Excessive pride, ambition or a lack of humility might be related to the lack of experimentation that was observed in the low-performing initiatives. Or, corporate executives may simply not see the value of probes, prototyping, or other learning activities because of timing and the abstract level at which corporate executives operate. That is, activities like prototyping and focus groups may be viewed by corporate executives as tactical, and therefore part of implementation rather than the formation (i.e., initiative resource allocation) of cross-business initiatives. In formal terms, this suggests the following relationship in dynamic markets.

Proposition 2: Experimentation yields higher performing cross-business synergy
initiative

Engaged multi-business team decision process

The traditional conception of corporate organization argues that the separation of strategic and tactical decision-making is the most efficient as it allows the corporate center to focus on the destiny of the corporation and allows the business-units to focus on within business-unit operations (Chandler, 1962; 1991). Moreover, this separation of decision-making is also argued to be essential in controlling the inherent self-interested behavior of the business-unit

general managers (Chandler, 1962; Williamson, 1975; 1993). The argument is that, if general managers are allowed to influence strategic decisions, then they will promote policies or plans that will benefit their units rather than the corporation as a whole (Chandler, 1962,: 162). This would be particularly true in the case of cross-business synergy initiatives, as the decision process is likely to involve the reallocation of resources (e.g., people, facilities, and financial resources) that have already been deployed by the business-units. Consequently, involving general managers in synergy initiative decision-making would place them in a classic social dilemma that is analogous to a “commons problem” (Hardin, 1968) in that decisions to pursue a cross-business initiative would involve making decisions about the “common-pool resources” (Ostrom, et al., 1999,: 278) of the corporation. That is, general managers will have strong incentives to act in their own self-interest by influencing decisions in a way that will minimize their resource contributions to shared initiatives relative to the benefits that their business-units are likely to derive. Moreover, theory would also predict that the pursuit of short-term interests by general managers in decisions regarding the reallocation of resources and capabilities of the corporation would most likely lead to the degradation of these resources (e.g., Hardin, 1968). This would, in turn, limit the potential of these resources to be recombined in future value-creating cross-business synergy initiatives.

Similarly, research on related diversification argues that corporate fiat is critical to efficient organization as debate, particularly among general managers, is inherently inefficient (Andrews, 1980; Williamson, 1996a). Because general managers have competing interests in decisions regarding the reallocation of resources to pursue initiatives, theory would predict that their involvement in these types of decisions would likely result in conflict which, in turn, would likely delay initiative implementation and therefore be inefficient (i.e., value-destroying, see

Ansoff, 1965; Andrews, 1980). In addition, if left unchecked, general managers are likely to be beset by opportunism that will in turn negate their ability to make decisions that favor the overall corporation (Williamson, 1975). Furthermore, this literature also argues that corporate is in the best position to adjudicate which cross-business collaborations should be pursued by the individual business-units (Ansoff, 1965; Williamson, 1975; Andrews, 1980; Goold, et al., 1994; 1996b). Therefore, the traditional diversification and M-form literature outlined above would suggest that the most effective decision processes for selecting and fashioning cross-business synergy initiatives would involve a top-down corporate executive decision process with limited engagement of the business-unit general managers.

However, the evidence from this study suggests a contrasting view. Decision processes that are characterized by a *multi-business team engaged decision* are related to high-performing synergy initiatives (see Table 5). The *multi-business team* (MBT) refers to the group of individual general managers that run each of the businesses. An *engaged decision* is defined as a decision process that is characterized by high-involvement. Typically this is characterized by a high-level of agreement on doing the initiative, high-level disagreement on the means by which the initiative implementation should be structured, and debate until a consensus decision is reached. A high level of agreement was determined to exist if a majority of the general managers of the business-units agreed on the need to do the initiative and expressed a high level of enthusiasm for it. Similarly, a high level of disagreement was determined to exist if there were disagreement over multiple points of the initiative implementation like the source of resources needed for the initiative, the organizational structure of the initiative, the business-model, and the overall technical architecture. Likewise, debate with consensus was determined to exist if specific points of disagreement were resolved through discussions among the general

managers that ultimately resulted in the general managers' agreeing to the major aspects of the initiative, especially how specific resources would be reallocated from projects within their business-units to the initiative implementation.

In contrast, a low level of involvement by the general managers was determined to exist if: 1) there were little general manager engagement in the decision process; and 2) a top-down decision was made by the corporate executive's exercise of fiat. A lack of engagement in the decision process was characterized by low levels of agreement and disagreement on the part of general managers. Or, in other words, they had an indifferent or apathetic attitude to the initiative decision process. Similarly, these cases had few, if any, descriptions by general managers of specific resource reallocations. Rather, accountability for these initiatives was quickly delegated to subordinates within the business-units. Likewise, a top-down decision by the corporate executive was differentiated by a lack of participation by general managers in the decision to proceed. The nature of the decision process emerged from the synergy initiative stories that were told to me by informants.

I observed that an MBT engaged decision process characterized all of the high-performing synergy initiatives. That is, high-performing cross-business synergy initiatives were selected by the multi-business team, involved both high levels of agreement on the opportunity that the initiative represented, and high levels of disagreement on the implementation details. This conflict over the structure and resource reallocations was resolved through a process of debate and consensus by the MBT. In contrast, we observed that all of the low-performing synergy initiatives were characterized by a lack of engagement or ambivalence with the initiative by the general managers of the business-units. All of the low-performing synergy initiatives were selected by the corporate executive, five of six had low levels of MBT agreement on doing

the initiative, five of six had low levels of MBT disagreement on the structure of the implementation, and all were characterized by a top-down decision process. This top-down decision process was characterized by the use of corporate fiat to mandate the MBT to pursue the initiative.

Insert Table 5 About Here

One illustration is Dataman. Here, the high-performing initiative had an *MBT engaged decision process*. The market situation was that a group of complementors had increased the prices of their products (software tools essential to using Dataman's core products effectively), to the point where the costs of these products were making the overall costs of using Dataman's core products prohibitively expensive. Simply put, these complementors had shifted from supporting to threatening Dataman's core businesses. All general managers and the corporate executive were in high agreement that the solution to this threat was the formation of a new business-unit to compete directly with these complementors by offering competitive products at much lower (but still profitable) prices. As one general manager related, "no one was opposed to doing Apache." However, there was strong disagreement on the structure of the business model for the new business-unit and the allocation of programming resources to develop the product offerings. In particular, there was significant debate as to whether the software products in the new business-unit should be sold on a one-time-charge or subscription basis. Likewise, there was significant debate regarding the reallocation of programmer resources by the business-units to this new initiative. As the corporate executive related, "the general managers' mood was we've got our mainline products to get out and why are you trying to jerk good skills onto this...when you're beating me up about my mainline commitments!" These issues resulted in a

high-level of conflict among the multi-business team about the specifics of the implementation. However, the general managers were highly motivated to resolve these conflicts because they each understood that their businesses would face a significant threat if the initiative did not succeed. These conflicts were resolved through a process of debate and consensus that extended over a two-month timeframe. General managers discussed their current resource deployment, progress on existing commitments, and their views on evolving market changes. This rich information provided a context in which the GM's understood one another's tradeoffs in pursuing the initiative, and thereby facilitated a high level of problem solving. Eventually, they made a consensus choice on the specific details of the initiative implementation.

Another illustration is Adlib. Like the case above, there was significant agreement within the multi-business-team on doing the bundling initiative. Likewise, there was also significant disagreement as to what the business-model for the bundling should be and what the technology development arrangements should be among the business-units. This created a significant amount of conflict between the general managers and the corporate executive as to the merits and tradeoffs of different options. For example, as one general manager said,

“...some of the biggest issues or challenges were how to build it, what was the minimum needed to make it successful. Did it need a common installer? Did it need common documentation? What should the pricing look like in terms of how you would discount each of the products and then what would the revenue attributions back would look like? Those were a lot of the first issues that had to get sorted out.”

These implementation issues were ultimately resolved through a process of debate and consensus. As one general manager summed it up, “we had to fight about the issues.”

In contrast, the decision to pursue the low-performing shared services initiative at Dataman was made by the corporate executive with little general manager involvement. The purpose of the shared services initiative was to realize efficiencies by having the three business-

units share the same software-testing environment. Since each of the existing software-testing environments had similar computing technologies, it appeared to the corporate executive to be an obvious and simple means to realize scope economies. However, there were several crucial differences in the test environment setup and testing logistics between the business-units that the corporate executive did not realize. When the corporate executive conveyed his decision, the general managers just accepted it with reservations. That is, they chose not to engage the corporate executive in any real discussions as to the merit or details of the initiative. The corporate executive described the decision process for fashioning the initiative as, “no one ever opposed it. They always said, yes, great idea but...” and half-heartedly agreed to proceed. The general managers, in turn, reassigned the implementation of this initiative to busy first-line managers who spent little, if any, time on it. There was also reluctance on the part of the general managers to take ownership of the initiative. As one general manager related, “people keep trying to pin it on me, but I am hiding.”

Similarly, there were low levels of engagement by the general managers in the decision process for the low-performing bundling initiative at Symbol. In characterizing the involvement of the other general managers, a general manager related, “there is still passive-aggressive behavior out there.” In this case, the general managers did not appear to see direct value for their individual business-units in pursuing the initiative and so did not devote the attention necessary to fully understand the initiative. Likewise, they were also reluctant to reallocate resources from existing projects to the implementation of the initiative. General managers simply maintained their focus on the objectives of their individual business-units, and paid little attention to the initiative other than discussing issues relating to it that were brought up by the corporate executive in review meetings. When conflict arose over the initiative, it was resolved by the

corporate executive's use of fiat. Consequently, there seemed to be little motivation for general managers to disagree and debate issues that arose during the structuring of the initiative implementation.

Surprisingly, the synergy initiatives that generated high levels of disagreement were the most effective. This observation is consistent with the literature on groups, which argues that moderate to high levels of task conflicts can be constructive, since they enhance understanding of various viewpoints and stimulate the generation of creative options (Janis, 1971; Bourgeois, and Eisenhardt, 1988; Jehn, 1997; Kramer, 1998). In addition, evidence in the groups literature also suggests that task conflict within management teams may also be related performance outcomes like increases in decision quality, profitability, and organizational growth (Bourgeois, 1985; Schweiger, Sandberg, and Ragan, 1989; Eisenhardt, and Schoonhoven, 1990; Jehn, 1995). In short, high levels of disagreement may have been an important factor in improving the quality of the initiative decision and its implementation structure.

One reason why conflicts may have arisen in the high-performing synergy initiatives may be that the initiatives were sufficiently realistic and concrete for decision makers to effectively debate and improve them. As discussed previously, the concreteness of these initiatives may have been the result of the business-unit origin and experiential learning associated high-performing synergy initiatives. These factors may have helped make clear to the general managers what the resource reallocation tradeoffs were likely to be with their existing projects if the initiative were pursued. Likewise, these factors may also have helped to make clear to the general managers that the initiative was sufficiently promising to warrant the necessary resource tradeoffs that would need to be made to realize it (i.e., there was high goal congruence, see Jehn, 1997).

Related to the above, another reason why multi-business team engagement is associated with high-performing synergy initiatives may also be due to the high level of participation by general managers in the decision process. This is consistent with the organizational change literature, which suggests that people who participate in change decisions are also more likely to understand and execute the tasks associated with the change effectively (Locke, and Schweiger, 1979; Spreitzer, 1995; Freeland, 1996; Locke, Alavi, and John A. Wagner, 1997). In each of the high-performing synergy initiatives, general managers had the essential role in making the decision to pursue the initiative as well as in making decisions on the resource reallocations that needed to be made. As described above, the business-unit origin and experiential learning associated with high-performing synergy initiatives provided the context necessary for general managers to understand the initiative and, consequently, effectively engage in the initiative decision process.

Finally, another surprising observation that emerged from the data was the absence of any specific a priori financial incentives to promote the formation of cross-business synergy initiatives among the general managers. Rather, the incentive for the general managers of the individual business-units to collaborate and make the necessary resource reallocations was that “it helps my business.” In other words, “strong incentives” did not eliminate collaboration. Rather, it focused collaboration on initiatives that were consistent with business-unit self-interest. This is consistent with some of the emerging process literature on strategy, which suggests that organizational arrangements that facilitate self-interest among business-units in related diversified organizations may be associated with high-performance (e.g., Galunic, 1994; Galunic, and Eisenhardt, 1996; Galunic, and Eisenhardt, 2001).

These findings also have an interesting comparison to what transaction cost economics

and agency theory would predict as the most effective synergy initiative decision processes in related diversified firms (e.g., Hill, et al., 1992). The observations in this study suggest that conflict and strong incentives (i.e., the alignment of self-interest with individual business-unit goals) do not appear to destroy corporate value. Likewise, a priori financial incentives to collaborate do not appear to be necessary for collaboration to occur. Much as Szulanski (1996) observed in his study of knowledge transfer, incentive-based motivational factors appeared to have little to do with the transfer and recombination of resources that were necessary to realize the high-performing initiatives in this study. Rather, knowledge was key. Moreover, the incentive for the general managers and their business-units to collaborate together was that the initiative was in the self-interest of their business-unit. That is, the initiatives provided a value-creating opportunity for the business-unit that justified the reallocation of resources from other existing within business-unit projects to the cross-business initiative.

Finally, these results suggest the emergence of the self-managed multi-business team as an important unit of corporate governance in dynamic markets. Traditional conceptions of governance view strategic decision making as either a top-down (e.g., Coase, 1937/1991; Williamson, 1975; 1987; Hill, and Hoskisson, 1987; Goold, et al., 1994) or bottom-up/emergent (1983; Bower, 1986; Burgelman, 1994; Noda, and Bower, 1996) process of resource allocation between the individual business-units and the corporate center. Consequently, they implicitly focus on the dyadic hierarchical relationship between these two corporate levels that is structured by either the separation of strategy and tactics (e.g., Ansoff, 1965; Andrews, 1980) or by evolutionary processes (e.g., Burgelman, 1996). However, what emerged in this data is the importance of general manager engagement and consent in governing the reallocation of resources among business-units to pursue new and evolving market opportunities. Similar to

Alfred Sloan's management practice of "participative decentralization" at General Motors (Freeland, 1996, : 493-495), general manager participation in the initiative decision process resulted in their commitment to, and consummate performance in, the initiative implementation. Therefore, this study provides an illustration of the importance of the relationships that exist among business-units that has, until now, been excluded from research on corporate governance and the traditional conception of the M-form (e.g., Williamson, 1975).

In summary, decision processes that have high levels of MBT team engagement and strong incentives do not appear to destroy value. Rather, MBT engagement and strong incentives can yield initiatives that put the resources of the corporation to a more productive use. Furthermore, in dynamic markets, the resource recombinations that are in the self-interest of the business-units may also often be consistent with the interests and goals of the corporation. This suggests a counterpoint to transaction cost economics and agency theory, which suggest that the value of the corporation is primarily derived from efficiencies. In contrast, this study suggests that, in dynamic markets, the value of the corporation may be derived more from the capability of the corporation to recombine resources into new value-creating strategies (e.g., as suggested by Schumpeter, 1934; 1942; Penrose, 1959). Moreover, the critical role of general manager engagement in the decision process suggests a new unit of corporate governance– the multi-business team. In formal terms, this suggests the following relationships in dynamic markets

Proposition 3: MBT engaged decision yields higher performing synergy initiative

Proposition 3a: Decision processes that have a multi-business team decision yield higher-performing synergy initiative

Proposition 3b: Decision processes that have high agreement on doing the initiative yield higher-performing synergy initiative

Proposition 3c: Decision processes that involve a high-degree of debate on the means of implementing the synergy initiative yield higher-performing synergy initiative

Strong organization implementation

How should high-performing cross-business synergy initiatives be organized? Previous research on the relationship between strategy and structure suggests that multiple business-unit teams and extensive coordinating mechanisms should be associated with high-performing synergy initiatives (Hill, and Hoskisson, 1987; Goold, et al., 1994; 1998). Specifically, the economic benefits of related diversification are theorized to be dependent on cooperative organizational arrangements that include centralization, corporate-level control and group-based incentives (Mintzberg, 1983; Child, 1984; Kerr, 1985; Gupta, and Govindarajan, 1986; Jones, and Hill, 1988; Hill, et al., 1992) with significant coordinating mechanisms between the businesses (Lawrence, and Lorsch, 1967; Galbraith, 1974; Galbraith, and Nathanson, 1978; Child, 1984; Luke, Begun, and Pointer, 1989; Martinez, and Jarillo, 1989; St John, and Rue, 1991; St John, and Harrison, 1999). The implication is that monitoring activities between business units is best done at the corporate level, as this is where the hierarchical authority relationship to control opportunism exists (e.g., Williamson, 1975). Likewise, these perspectives argue that information flows need to be carefully controlled and sufficiently task-specific so as not to overwhelm the information processing capabilities of the business-units (e.g., Galbraith, 1974; Stinchcombe, 1990). Consequently, there should be a need for multiple formal task forces at different points in the business-unit hierarchy to manage the increased complexity and information requirements of cross-unit collaborations.

However, the evidence from this study suggests that a *strong organization implementation* is associated with high-performing synergy initiatives (see Table 6). We defined a *strong organization implementation* as one in which there was: a significant reallocation of resources (e.g., a massing of people from multiple businesses); a modular implementation structure; and loose coupling. If the structure of a specific synergy initiative implementation had all of these characteristics, it was determined to be a *strong organization implementation*. Significant recombination or massing of resources among business-units involves actions like people transfers, charter changes (e.g., Galunic, and Rodan, 1998), and/or the relinking of businesses (e.g., Eisenhardt, and Galunic, 2000). Modularity is measured by the existence of a dedicated core initiative team (i.e., 100% of time dedicated to the initiative), comprised of a dedicated team leader and team members. Loose-coupling is measured by the use of a few (3-5) simple coordinating mechanisms like product management reviews, technical review committees, user-interface standards or management review committees. These standardized committees facilitate the *integration* of activities with other organizational teams with which there are interdependencies (e.g., other product development groups in the business-units), while at the same time maintaining the *specialization* of the dedicated team to the initiative (cf. Orton, and Weick, 1990; Brusoni, Prencipe, and Pavitt, 2001). This combination of a dedicated core team, with a few simple standardized coordinating mechanisms to link to other teams, indicates a high degree of *separability, specialization, and integration* and, consequently, modularity and loose-coupling (cf. Orton, and Weick, 1990; Schilling, 2000; Brusoni, et al., 2001).

One illustration of a *strong organization implementation* is Symbol's high-performing bundling synergy initiative. In this case, a dedicated team was created in one of the business-units by massing key individuals from multiple businesses together to focus on the initiative.

Their role was to ensure that the initiative happened, it was their full-time job. For example, they managed the development of a common user interface standard, interoperability specifications, and ensured that consistent documentation was created. These and other activities helped make sure that bundle of products would be uniform and rational. As one general manager related in describing the organizational implementation structure, “the main responsibility of the integration team is to define what are the standards and what is the installation, and then the various teams or technologies that get brought into Athena need to do their own changes to adhere to the new standards.” This core team linked with other business-units through four existing management processes (e.g., product management, program management, QA management and development management).

Insert Table 6 About Here

Another illustration is Autumn’s high-performing standard platform initiative. In this case, the multi-business team decided to create a dedicated initiative team by reassigning a senior level manager from one business-unit and selected key individuals who were on existing projects full-time to the initiative. As the corporate executive related, “we actually put in place a director who was responsible.” In addition, the team was collocated in a single facility and reported directly to one of the general managers. The sole responsibility of the initiative team was to coordinate the development and product release schedules of the standard platform with the next versions of the complementary products in the individual business-units. This team linked with other business-units through three mechanisms. Two of these were existing standardized development processes (i.e., development management and quality assurance management). The third was a product liaison team that was put in place specifically for the initiative, which meet

once a week with the core initiative team to discuss and coordinate overall activities.

In contrast, the low-performing initiative at Symbol did not have a *strong organization* implementation. This initiative was over-connected. It was intended to bundle products from the desktop, network and enterprise server business-units into a coherent package that could operate as an integrated whole. The corporate executive decided to have each of the business-units focus on their respective products and to coordinate their activities with each other. Thus, the implementation of the initiative was spread across four teams, each residing within separate business-units and spread across five physical locations. Each of these teams were comprised of non-dedicated members who continued to also work on their existing assignments. No significant dedicated resource reallocations were made. In addition, 20 coordinating mechanisms were created, such as various development and product management liaison teams that operated at multiple organizational levels (i.e., individual, project manager, architect, mid-level manager, etc.) in addition to the standard management processes that existed for software development. This compares with the four standardized coordinating mechanisms used in Symbol's high-performing initiative described above. Taken together, these factors suggest a very complicated organizational implementation structure. For example, one general managers described it as follows, "...we call them summit meetings that happen every two weeks where everybody from the business-units is invited to attend and we talk about...what our plans are." Similarly, another general manager described the number of additional coordinating mechanisms as

"There's a billion mechanisms, billion, there's 20 mechanisms in place to drive the completion and integration and coordination et cetera and making sure that it stays on track...fundamentally we have five locations all trying to take advantage of this...so now you've got this situation where you've go to make sure you're

coordinating on a very regular basis or in fact you won't converge properly.”

Rather than proceed with a few linkages, Symbol managers chose to create around 20 additional unique processes to coordinate the development activities of the business-unit product teams.

Another example is Autumn's low-performing initiative Avatar. This initiative was under-connected. It was intended to create a standard platform product that would be a key driver of web-enabled services for the business-units. There was a dedicated implementation team and team leader. But, they all came from one business-unit. No significant transfers of people from other business-units or reassignments within the hosting business-unit were made. Rather, the scope of an existing project was simply expanded to include the synergy initiative – no significant resource reallocations were made. There was also no real effort to coordinate activities with teams in the other business-units. Rather, the team simply focused on their expanded charter and continued to execute their tasks as before, remaining essentially 'unlinked' from the other business-units. No real effort was made to integrate the activities of the dedicated team with project teams in the other business-units with which there were interdependencies. In essence, Avatar was *decoupled* from the rest of the organization (cf. Brusoni, et al., 2001).

As in acquisitions (Karim, and Mitchell, 2000; Capron, Mitchell, and Swaminathan, 2001) and market entry (Galunic, and Eisenhardt, 2001) literatures, significant recombinations of resources (e.g., people transfers, patching, relinking businesses) are often required to capture opportunity. Significant resource changes are important in that they may provide an opportunity for the business-units to overcome the constraints that their existing routines create (e.g., Capron, Dussauge, and Mitchell, 1998; Capron, et al., 2001). Likewise, dedicating significant resources to the initiative may also signal organizational commitment and thereby create greater commitment to the initiative by the initiative team and in the other groups with which they have

interdependencies.

In addition, modularity adds further benefits. Modular organizational structures are both focused and flexible, two characteristics that are crucial in dynamic markets (Eisenhardt, and Martin, 2000). Or, in the language of loosely coupled systems and related to complex adaptive systems thinking, modularity provides both distinctiveness and responsiveness (e.g., Weick, 1976; Orton, and Weick, 1990). Modular organizational structures create the focus necessary to generate greater understanding and commitment to the initiative by the team (i.e., creates specialization and group identity), while at the same time providing flexibility in adapting the specific characteristics of the initiative to continually changing internal capabilities and market needs (e.g., Murnighan, and Conlon, 1991; Ancona, and Caldwell, 1992; Sanchez, and Mahoney, 1996). This flexibility is facilitated in part by a few standardized mechanisms for communications and coordination of interdependent activities with other business-unit teams. These mechanisms provide an efficient means for managers to communicate and negotiate within the existing organizational structures. Together, these factors maintain a high degree of specialization and integration, or loose-coupling (cf. Brusoni, et al., 2001), between the dedicated initiative team and other groups in the business-units. In contrast, low-performing initiatives were either characterized by the creation of many additional non-standard formal coordinating mechanisms, which became confusing and thus inefficient, or they remained unlinked from the rest of the organization, and so were non-responsive. In essence, they were either tightly coupled or decoupled.

There are several reasons why a lack of modularity, loose-coupling and massing of resources may have been problematic. One reason may be that individuals, who were not assigned to the initiative full-time, may simply not have been able to overcome the inertia of the

existing roles and responsibilities that they retained (e.g., Dutton, and Dukerich, 1991; Levinthal, and March, 1993; Dutton, Dukerich, and Harquail, 1994; Arrow, McGrath, and Berdahl, 2000). Consequently, they may not have been able to sufficiently reconfigure their work practices and skills to effectively implement the new initiative. In addition, individuals who continued to work on existing projects may have been less likely to develop a strong shared identity with the initiative team. Therefore, they may have had greater difficulty in resolving conflict, particularly when conflicts arose between their prior retained roles and their new roles on the initiative team (e.g., Moore, et al., 1999; Mortensen, and Hinds, 2001). These observations suggest that strong organization implementations of synergy initiatives may create the major change that is necessary to effectively reconfigure resources into new value-creating strategies in the face of constraints to change.

Taken together, these reasons suggest that a *strong organization implementation* (i.e., significant resource reconfiguration coupled with modularity and loose-coupling) may also be an important basis for coevolution within the corporation. That is, synergy initiatives with a strong organization implementation are one way in which corporations may be able to overcome the inertia of their existing resource and capability configurations to develop new business-unit linkages that are better adapted to the needs of the market. Using the language of complexity and evolutionary theory, synergy initiatives may provide a means to build bridges between the peaks of the fitness landscape of the corporation (i.e., business-unit resource configurations) and thereby become the basis for discovery and adaptation to future shifts in the overall fitness landscape (e.g., Anderson, 1999; Kogut, and Kulatilaka, 2001). In addition, they may be the means to resolve the dilemma of weak ties for search and strong ties for transfer (Hansen, 1999) of complex knowledge that a static network structure creates. In formal terms, these

observations suggest the following relationship in dynamic markets.

Proposition 4: Strong organization (i.e., significant realignment of resources, modularity, loose coupling) implementation yields higher performing synergy initiative

Discussion

Previous research suggests that cross-business synergies are central to the rationale for the multi-business corporation (Porter, 1985; Kanter, 1989; Goold, et al., 1994; Barney, 1997; 1998). However, while there is persuasive evidence that corporate synergies do in fact exist (e.g., Rumelt, 1974; Roquebert, et al., 1996; Brush, and Bromily, 1997; McGahan, and Porter, 1997; Brush, et al., 1999; Palich, et al., 2000; Bowman, and Helfat, 2001), the empirical evidence that examines various sources of these synergies remains equivocal (Rumelt, 1974; Ramanujam, and Varadarajan, 1989; Hoskisson, and Hitt, 1990; Markides, and Williamson, 1996; St John, and Harrison, 1999). Moreover, the research that has focused on the sources of synergy has offered little insight into the processes by which they are realized (Martin, and Eisenhardt, 2001).

This study addresses this gap in the literature by exploring the research question: “How do managers in multi-business organizations capture corporate value (i.e., synergies) in dynamic markets?” Specifically, this study focuses on the processes by which temporary collaborations among business-units are identified and implemented in the corporation. Therefore, in contrast to the extant literature, which focuses on synergies that are realized through relatively permanent collaborations (e.g., sharing manufacturing facilities, R&D, marketing channels, or brand), this study focuses on temporary collaborations that are formed to exploit emerging opportunities.

Key findings

There are several findings that have emerged from the results of the literature review and the inductive multiple-case study of cross-business synergies. First, our review of the extant theoretical and empirical literature suggests that, while the research domain related to cross-business synergies is large and diverse, it has yet to generate a set of consistent and generalizable findings as to the sources of potential synergies and how these potential sources of synergy are realized. In particular, the understanding of cross-business synergies, and especially their realization in dynamic and in knowledge-based industries, remains limited. Second, our empirical study indicates new insights into the nature of the corporate effect by clarifying the sources of synergy and describing a theoretical framework for the processes by which synergies are achieved. It also suggests a new unit of corporate governance, the team of general managers (termed “the multi-business team”), which is particularly significant in achieving cross-business synergies in dynamic markets. We expand these findings below.

Observations from the literature. There are several observations that can be made from the extant theoretical and empirical literature related to cross-business synergies. First, there is persuasive evidence in the diversification and variance components of performance literatures that synergies (and dissynergies) do in fact exist in the corporation (e.g., McGahan, and Porter, 1997; Brush, et al., 1999; Palich, et al., 2000; Bowman, and Helfat, 2001). The corporate level does matter and can play a pivotal role in overall firm performance.

Second, there are four primary sources of cross-business synergy: economies of scope (spreading costs), market power (keeping prices high), internal governance advantages (internal efficiencies relative to market relationships), and recombinative processes (realigning resources to capture corporate value more effectively). We found that, while the literature related to the

first three sources of synergy is well-developed theoretically, the empirical evidence is often limited, and in many cases is equivocal.

Finally, for the fourth source of synergy, there are several salient processes for capturing corporate value, especially in dynamic markets, that were identified: *knowledge-transfer*, the movement of knowledge among the businesses; *recoupling*, the changing of the web of collaborative linkages; and *patching*, the reconfiguring of the business-units and their charters to address changing market opportunities. These coevolutionary processes bring the market inside the corporation and thereby facilitate the coexistence of collaboration and competition among the business-units, thus making it possible for the organization to adapt. Yet, while intriguing, there remains little systematic research into the nature of these processes and how they may lead the realization of synergies.

Empirical insights related to sources and processes of synergy. The second set of findings relates to insights from the results of examining the sources and processes of synergy in an empirical setting. This research provides a more complicated view of the sources of synergy in related diversified firms than has been exhibited in the literature. The sources of value in the five types of synergy initiatives observed in this study did not cleanly separate into sources like economies of scope, market power, and internal governance advantages (e.g., Martin, and Eisenhardt, 2001). Rather, value from high-performing synergy initiatives was realized from a combination of these sources.

Moreover, the primary source of value in the high-performing synergy initiatives observed in this study was revenue enhancements such as: accelerated time to market, higher product value, economies of growth from expanding markets and share (e.g., Penrose, 1959; Helfat, and Eisenhardt, 2001), and the rapid and frequent reconfiguration of resources to match

changing market opportunities (e.g., Schumpeter, 1934; 1942; Nelson, and Winter, 1982; Eisenhardt, and Martin, 2000). This is in contrast to the traditional conception of cross-business synergies that emphasizes value that is created through costs savings resulting from economies of scope and/or internal governance advantages. Furthermore, revenue enhancements observed in this study were not based on strategies that were intended to create anti-competitive effects in the market, like blocking competitors from market access or limiting customer choice, which have been the focus of studies of market power. Rather, most of the revenue-enhancements were distinctly competitive in their nature in that market power was derived from the creation of goods and services that customers prefer, and were thus willing to pay a higher price for relative to competitor offerings. Therefore, this study suggests a more complicated view of the sources of potential synergy than has been illustrated in the literature.

Theoretical framework of synergy realization. The major finding of the empirical research in this study is the theoretical framework by which synergies were realized within multi-business corporations in dynamic markets (see Figure 1). High-performing synergy initiatives originate (often serendipitously) in the business-units, not at corporate. These initiatives are based on concrete experiments and are not the result of corporate planning alone. Furthermore, high-performing initiatives have an engaged multi-business team decision process, not a top-down corporate decision process. Finally, those initiatives that have a strong organization implementation (i.e., significant realignment of resources, modularity, and loose coupling) perform better than those with incremental resources changes, multiple teams with non-dedicated members, and coordinating mechanisms that are either too complicated or disconnected (i.e., tightly coupled or decoupled).

Insert Figure 1 About Here

The underlying logic of this framework is as follows: Potential cross-business synergies originate from the many projects that are underway within a corporation. Consequently, they are intimately connected with existing resources and capabilities, and with the related market opportunities. Furthermore, the larger pool of possible projects at the business-unit level, and the superior likelihood of alignment with changing market needs, improves the overall quality of the initiative relative to those initiatives that originate at corporate. Using the language of real options, a portion of the projects associated with these resources and capabilities can be considered “shadow options” (e.g., Bowman, and Hurry, 1993) on potential synergy initiatives that have not yet been discovered by managers as such. When managers discover a potential synergy initiative, experiments (e.g., probes and prototypes) can then used to generate the learning and capabilities that are useful for executing the synergy initiative effectively (e.g., Hurry, Miller, and Bowman, 1992).

Experiments increase the understanding of the initiative by making clearer the market opportunity and the resource commitments that will be necessary to realize the initiative. These factors, in combination with the business-unit origin of the initiative, then make it possible for the general managers to more effectively consider the tradeoffs between a particular cross-business synergy initiative and other projects. They create the context necessary for an engaged multi-business team decision. In addition, experiments also provide opportunities for individuals from different business-units to work together. This helps improve the social relationships among the business-units that will be needed to execute the initiative.

The engaged multi-business team decision process is characterized by a high level of

involvement by the general managers in the decision to pursue the initiative. This decision process has several consequences. First, the process of debate generates greater understanding among the general managers of the opportunity that the initiative represents for each of their business-units. Second, the involvement of general managers in the decision process and their consensus also create greater commitment to the initiative. Finally, the outcome of the debate and consensus process further improves the quality of the initiative by refining its fit with the market opportunity, ensuring that appropriate resources are dedicated to it, and building the organizational commitment necessary to assure that the initiative implementation is carried out in a consummate fashion. The results of this high-engagement decision process are synergy initiatives that are in the self-interest of business-units, and, so in the interests of the corporation.

Finally, the strong organization implementation of high-performing synergy initiatives creates both the focus of attention and flexibility that are necessary to adapt the initiative to changing markets. Strong organization implementations have several characteristics that facilitate this. First, a strong organization implementation includes a significant resource reallocation. This is typically characterized by the reassignment and full-time dedication of individuals to the synergy initiative project. The dedication of team members to the initiative facilitates a commitment to the initiative that would not be possible if team member attention were shared across other projects. In addition, this massing together of individuals from the business-units means that their social relationships from their previous assignments are available to the initiative team. This helps to facilitate the management of interdependencies between the core initiative team and other businesses. Second, loose coupling is produced through the utilization of a few coordinating mechanisms with other business-units. This loose coupling allows the initiative team to maintain a high degree of *specialization* and *integration* (also termed

distinctiveness and responsiveness by Orton, and Weick, 1990). These modular structures create *separability* of the synergy initiative from the many other activities within the business-units.

Thus, much like the product development literature that focuses on the importance of improvisation and modularity, (e.g., Brown, and Eisenhardt, 1997; Miner, et al., 2001), a strong organization implementation facilitates the adaptation of synergy initiatives to changing circumstances, even as the initiatives are being implemented (cf. Weick, 1993a; 1993b). This further improves the quality of the initiative.

In sum, synergy initiatives with a business-unit origin, experimentation prior to final resource allocation, an engaged multi-business team decision, and a strong organization implementation typically have higher quality, more commitment, better understanding, and more efficacious social relationships among the business-units. These factors in turn are related to higher initiative performance. In contrast, those initiatives that are originated at the top of the organization, are based on planning alone prior to final resource allocation, have little general manager involvement in the decision process, and have a distributed and/or complicated organizational implementation, were low-performing.

Overall, the lasting effect of high-performing cross-business synergies may not only be the results of the initiative itself, per se, but also the creation of a dynamic capability to achieve future synergies. For example, the processes used by managers to create the high-performing bundling initiative at Adlib have been replicated in two subsequent bundling initiatives. Furthermore, the content of the product bundles at Adlib are continually evaluated to determine if they are still value-creating.

Multi-business team. The results of this research also suggest a new unit of corporate governance, the multi-business team. These teams, consisting of the general managers of the

business-units, play an essential role in the discovery, selection and construction of high-performing synergy initiatives. This suggests that, in dynamic markets, the business-unit general managers may have the most comprehensive information on the resources and capabilities of the business-units, and their match with market opportunities. Consequently, the business-units themselves, rather than the corporate center, are in the best position to identify and adjudicate potential synergy initiatives with sister business-units. Therefore, the multi-business team, rather than the corporate center, appears to be the locus of value-creation and loss prevention in dynamic markets and in knowledge intensive industries.

Moreover, in contrast to what studies of the strategy-structure linkage would predict (e.g., Hill, et al., 1992), these general management teams are motivated to form cross-unit initiatives by the potential that they offer to their individual business, rather than by any a priori group-based (weak) incentives to collaborate. Collaborative incentives never emerged as a rationale for pursuing particular initiatives or in the structuring of the initiatives themselves.

So what, then, is the role of the corporate executive in dynamic markets? The role is to focus on developing the team of general managers and structuring the context for interactions among them. If general managers are not aware of the other business-units, do not communicate with them, or do not develop some level of trust with their counterparts, then high-performing initiatives like those described in this study are not likely to occur. This is not to suggest that the corporate executive should yield other crucial roles such as assembling the businesses, setting long term strategy and vision, and mediating the financial relationship between the corporation and market stakeholders. Rather, it suggests a more thoughtful approach to the locus of decisions, corporate governance, and the importance of gaining general manager involvement and consent in realizing corporate value. In the high-performing initiatives in this study, there

were clear actions by the general managers in discovering opportunities, experimenting, and vigorously debating them, and then choosing the specific initiative and parameters of implementation. These activities fit the classic depiction of the corporate entrepreneur (e.g., Schumpeter, 1942; Penrose, 1959). Synergy did not just happen. Managers had to recognize opportunities and create an organization that could realize them effectively.

Boundary conditions. Our theoretical framework was inducted from our observations in six global corporations in the software industry. This setting was chosen in order to observe synergies among business-units in a corporate setting where knowledge-based resources and change were particularly salient. However, by finding common themes and constructs within firms that compete in three very different segments of this industry (i.e., consumer, enterprise and infrastructure market segments), greater generality was gained. Likewise, by focusing on knowledge-based resources, additional generality has also been gained with regard to other settings where knowledge and other intangible resources are particularly important. However, it would clearly be useful to examine how synergies are realized in industries where pace is slower and where different types of tangible resources, such as plant or equipment (e.g., manufacturing, mining, transportation and agriculture), or intangible resources, such as brand or service (e.g., wholesale, retail trade, services, lodging and entertainment), are emphasized. In particular, the observation by McGahan and Porter (1997) of corporate effects on variance in performance, ranging from negligible in the manufacturing industry to over 44%, in the wholesale and retail trade industries, suggests that there may be significant industry differences in opportunities to realize value from cross-unit relationships.

I also focused on temporary collaborations among businesses, which we describe as “cross-business synergy initiatives,” rather than on relatively permanent collaborations among

business-units, such as sharing manufacturing or the sales organization. In more stable market contexts, more permanent types of collaborations may be more crucial to achieving corporate value. However, temporary collaborations may still play a role. Likewise, in more stable market contexts, initiative decision processes that are driven from the top and involve careful planning by the corporate staff may be more effective than the multi-business-team decision process that we observed. Nonetheless, as Freeland (1996; 2001) observed in his study of General Motors, the involvement of the general managers of the business-units in deciding and constructing initiatives may still be crucial to gaining general manager consent, and ensuring consummate performance in carrying out corporate strategy.

Our focus on the global software industry, which is characterized by high-growth and pace, may also have emphasized processes that generate opportunities rather than efficiencies. In stable or declining industries, value that is created by continually driving efficiencies may be a more important source of corporate value than creating new recombinations of resources. Nevertheless, having processes that facilitate the recombination of resources to enter new markets or industries is likely to be relevant to some degree in all industry contexts.

Within each firm, we examined the evolution of both high-performing and low-performing initiatives. This theoretical sampling strategy was intended to make the processes that affect synergy initiative performance more transparently observable (e.g., Eisenhardt, 1989a). In doing this, we observed that no particular type of synergy initiative was exclusively associated with either high- or low-performance. In addition, managers in each corporation were able to identify from four to six current cross-business initiatives, each of which had outcomes that ranged from high- to low-performance. These factors add support to the argument that there are better and worse ways to manage the realization of synergies among the business-units.

Moreover, we believe that the observed important differences in the processes by which polar outcomes were realized adds to the generality of these results. Still, given our inductive approach, future research should engage in careful testing of the propositions that we inducted.

Implications for organization theory

This research attempts to make a broader contribution to organizational theory by developing a rationale for the M-form that is based on a logic of innovative recombination and coevolution of business units and markets, rather than one of economizing attention or controlling opportunism. Thus, it provides a counterpoint to the transaction costs, property rights, contingency and agency theory perspectives (e.g., Lawrence, and Lorsch, 1967; Thompson, 1967; Alchian, and Demsetz, 1972; Jensen, and Meckling, 1974; Williamson, 1975; Hart, 1989). In addition, this research also attempts to contribute to organizational theory by describing organizational change. Much of the recent literature related to organizational change has focused on how change occurs within organizational populations or communities through the basic evolutionary processes of variation, selection, and retention, as well as through diffusion and imitation (Campbell, 1965; Hannan, and Freeman, 1977; Zucker, 1977; McKelvey, 1982; DiMaggio, and Powell, 1983; Baum, 1996; Aldrich, 1999). However, this research neglects change inside organizations. This study extends the organizational change literature by going inside the organization and describing how organizational change can result from the coevolution of the business-units, their links, and changing markets.

New rationale for the M-Form. This research provides new thinking about the rationale for the M-form. The traditional literature related to the M-form focuses on a rationale that is centered on creating modularity to economize attention and thereby create efficiencies (e.g., Coase, 1937/1991; Alchian, and Demsetz, 1972; Williamson, 1975; Fligstein, and Freeland,

1995; Freeland, 1996). Accordingly, the literature theorizes that the value of the corporation is primarily due to cost savings that are derived from efficiencies resulting from economies of scope and/or internal governance advantages (Demsetz, 1967; Jensen, and Meckling, 1974; Rumelt, 1974; Williamson, 1975; Palepu, 1985; Wernerfelt, and Montgomery, 1988; Markides, and Williamson, 1996). However, this research suggests an additional rationale, one that indicates that organizational modularity can also facilitate the continual innovative recombination of resources into new value-creating strategies. The primary source of corporate value derived from the initiatives observed in this study resulted from revenue enhancements and competitive gains. This suggests a rationale of opportunity, rather than efficiency, for realizing corporate value and for justifying the existence of the corporation.

Similarly, the M-form literature also argues that the M-form provides a more flexible transacting environment than is possible to achieve through contracting in the market (Demsetz, 1967; Williamson, 1975; 1985; Klein, 1988; 1996a). This research suggests that the M-form also provides flexibility in structuring an internal environment that facilitates processes of resource reconfiguration. In particular, the M-form provides a setting in which related businesses can be assembled together, one that combines “high-fidelity” information (e.g., Pisano, 1994, : 86) and social embeddedness (e.g., Granovetter, 1985). This in turn facilitates the *discovery* of potential synergies, and generates the trust and cooperation necessary to effectively construct initiatives to realize these synergies. This socialized and process view of corporate action becomes particularly relevant in changing markets, where creating a priori incentives and extensive monitoring mechanisms to align goals becomes problematic.

Organizational change. Much of the recent theory and research on organizational change has focused on organizational ecology (e.g., Hannan, and Freeman, 1977; Carroll, 1984),

institutional theory (Meyer, and Rowan, 1977; DiMaggio, and Powell, 1983; Selznick, 1996), and social network theory (Burt, 1980; Krackhardt, 1990; Powell, and Smith-Doerr, 1994).

These theories have an underlying assumption that organizations have a high degree of structural stability. For example, studies of organizational ecology argue that successful organizations will be inert, and therefore have difficulty responding to shifting environments (Hannan, and Freeman, 1977; 1984). Accordingly, selection is emphasized as the means for change. Moreover, there is little room for management intentionality because “in a world of high uncertainty, adaptive efforts [of individuals]...turn out to be essentially random” (Hannan, and Freeman, 1984,: 150).

Similarly, institutional theory contends that organizations seek legitimacy in their environment in order to survive (Meyer, and Rowan, 1977; Zucker, 1977). Accordingly, organizations are selected and survive through processes of mimetic isomorphism with their economic, social and political contexts (e.g., DiMaggio, and Powell, 1983; Fligstein, 1985; Biggart, and Guillen, 1999). Therefore, once organizations are in conformity with their institutional environment, they will remain stable. Consequently, organizations are unlikely to make adaptations that are non-conforming with their institutional environments, even when these adaptations might result in increased efficiencies or other benefits (e.g., Westphal, and Zajac, 1994).

Organizational change from the perspective of social network theory focuses on the ties between network nodes, the position of network nodes within the constellation of these ties, and how information or knowledge flows across them (e.g., Burt, 1980; Powell, and Smith-Doerr, 1994; Uzzi, 1996; Hansen, 1999). The contention is that “weak” ties favor exploration and “strong” ties are better for exploitation (e.g., Hansen, 1999). Therefore, weak ties, like those that

may exist between individuals in different business-units, should be advantageous for identifying novel cross-business synergy initiatives. However, these same weak ties are then likely to be problematic for sharing knowledge in a meaningful way once an initiative is identified and underway (Hansen, 1999). The underlying assumption is that networks are stable. There is no real conception of how network ties become “weak” or “strong” or otherwise evolve.

In contrast, this research provides an alternative view of organizational change. In particular, this study indicates how organizations can overcome the inertia of their existing resource configurations to effectively pursue new collaborative opportunities. For example, the high-performing common feature initiative at Bean resulted in the discovery of an emerging market opportunity that supported the creation of a new business-unit. As one corporate executive related, “what came out the other end of [the initiative] was this totally great technology...and these products around it that we could have never dreamed of.” Thus, a cross-business synergy initiative resulted in the discovery of a new business opportunity. The pursuit of this initiative resulted in the adaptation of the resource configurations of the corporation to the new opportunity that emerged in the competitive landscape.

Thus, this research contributes to coevolutionary theory by providing insight into the sources and processes of variation and retention within organizations. Much of the recent coevolutionary theoretical and empirical work has focused on the emergence, development and change of organizational forms at the level of analysis of the firm (e.g., Koza, and Lewin, 1998; Djelic, and Ainamo, 1999; 1999; Lewin, Long, and Carroll, 1999). However, McKelvey (1997, :360) has argued that “coevolutionary effects take place at multiple levels within the firm (microcoevolution) as well as between firms and their niche (macroevolution).” Likewise, Lewin and Volberda (1999) define coevolution as “the joint outcome of managerial

intentionality, environment, and institutional effects.” Thus, this research contributes to theories of organizational change by illustrating how coevolutionary processes and management intentionality within the corporation can result in the adaptation of organizations to changes in the environment. That is, organizations are not simply subject to inertia, isomorphism or position within a fixed social network.

Overall, this research illustrates how managers within corporations can evolve the competitive position of the corporation and thereby effect organizational change. In particular, this research provides an illustration of related diversified corporations as “dynamic communities” (Galunic, and Eisenhardt, 2001, : 1243), in that they are comprised of related independent business-units within a corporate structure that coevolve through a recoupling process with changing market circumstances. This coevolution is driven by the identification and implementation of new cross-unit collaborations that recombine corporate resources to exploit new areas of the competitive landscape.

Theoretical implications for strategy

This research also attempts to make a broader contribution to strategy by describing the nature of the corporate effect, providing a more comprehensive view of resource relatedness, and reinforcing the opportunity strategic logic. Finally, this study provides an empirical illustration of entrepreneurship within the corporation and the recoupling process as a source of synergy.

Resource allocation and the nature of the corporate effect. This research sheds light on the nature of the corporate effect (Bowman, and Helfat, 2001). In particular, this paper highlights the importance of temporary collaborations that may emerge among the business-units. These temporary collaborations represent an important source of corporate value that has received little, if any, attention in the literature.

Cross-business synergy initiatives highlight the importance of the horizontal relationships *among* the business-units within the corporate structure. Therefore, this study provides a complementary view to the implicit focus in the strategy literature on the vertical relationships between the corporate center and the individual business-units. Vertical relationships focus on corporate value that is created by effective management of the portfolio of businesses by the corporate center (Coase, 1937/1991; Williamson, 1975; Chandler, 1991), and by the processes of resource allocation and strategy formation between individual businesses and corporate (Bower, 1986; Burgelman, 1994). In particular, the movement and recombination of knowledge through reciprocal relationships among business-units highlights the importance of organizational structure, roles and processes to synergy. Thus, this research may, in part, provide a framework in which to reexamine aspects of theories of coordination, like reciprocal interdependence, which have not been addressed in the literature since Thompson's (1967) thesis on organizational action.

Relatedness. This research also provides a more comprehensive view of resource relatedness, with a particular emphasis on knowledge-based resources and complementarities. Most of the extant diversification studies use measures derived from SIC codes to measure the degree of relatedness within corporations. These measures primarily capture relatedness in terms of similarities in the production functions of the business-units. Consequently, these studies often miss other important types of relatedness like complementarities and relatedness between other value chain dimensions (e.g., the marketing channel) (e.g., Davis, and Thomas, 1993; Larsson, and Finkelstein, 1999).

In addition, there is a high variance in the granularity of 2- and 4-digit SIC codes. As a result, the use of these types of measures may lead to a misidentification of the degree of

diversification within firms, particularly when comparing across industries. For example, SIC-based measures of relatedness would likely misidentify some of the firms in this study as single business firms, even though the business-units offered distinct products and services to different market segments. In contrast, unrelated business-units like pharmaceuticals and agricultural chemicals, which share the same 2-digit SIC code, would likely be classified as related businesses.

Finally, SIC-based measures place an inherent emphasis on physical bases of relatedness and thus may neglect the relatedness of knowledge-based resources such as skills and process knowledge. For example, Sony Corporation has extensive knowledge-based resources related to miniaturization, which would not be explicitly picked up by SIC-based measures. This limited view of relatedness becomes particularly problematic in dynamic markets where knowledge-based resources, which are more fungible than physically based resources, are particularly important to realizing corporate value (e.g., Miller, and Shamsie, 1996). Consequently, this study suggests that new measures of relatedness that capture complementarities, as well as similarities, need to be explored.

Dynamic capabilities and the capture of opportunity. This research also makes a broader contribution to strategy by providing an empirical example of dynamic capabilities as a source of competitive advantage (e.g., Teece, et al., 1997; Eisenhardt, and Martin, 2000). The source of competitive advantage is perhaps the most fundamental issue in strategic management (Peteraf, 1993). Much of the traditional strategy literature has emphasized industry structure and strategic positioning within that structure (e.g., Porter, 1979; Henderson, and Cockburn, 1994), or the internal organization of heterogeneous resources (e.g., Rubin, 1973; Wernerfelt, 1984; Prahalad, and Hamel, 1990; Barney, 1991), as the determinants of competitive advantage. Both

of these views of strategy focus on the establishment of a sustainable competitive advantage (Conner, 1991; Mahoney, and Pandian, 1992; Peteraf, 1993; Porter, 1996). Specifically, strategic positioning focuses externally on the industry environment to create defensible competitive positions (Porter, 1979). Similarly, the resource-based view focuses internally on creating configurations of valuable, rare, inimitable and non-substitutable resources that can be leveraged (Barney, 1986; Amit, and Schoemaker, 1993; Eisenhardt, and Martin, 1999).

In contrast, our research reveals a strategic logic in which value is realized through continually capturing opportunities (e.g., Eisenhardt, and Martin, 2000). Specifically, our research provides an illustration of how value is created through the processes of identifying and implementing cross-business synergy initiatives – that is, through recoupling. These processes result in the recombination of resources into new strategies that put the resources and capabilities of the corporation to more productive use (cf. Penrose, 1959). Furthermore, these types of recoupling processes, which have been described as processes of “creative destruction” (Schumpeter, 1942), are an essential component of corporate value creation and the evolution of markets. Competitive advantage is created through dynamic capabilities that facilitate the identification and exploitation of a constant series of temporary advantages (Eisenhardt, and Martin, 2000). Therefore, our research reinforces an opportunity-capture logic that, in dynamic markets, may offer a more important source of competitive advantage than the more traditional strategic logics of leverage and defense.

Corporate entrepreneurship. Finally, this study indicates the spirit of opportunity capture within the corporation. High-performing cross-business synergy initiatives emerged from the numerous business-unit activities. They were *discovered* by managers who, at the outset, were not specifically searching for them. In effect, the numerous business-unit activities

and their interaction with evolving markets, provided information to managers about potential collaborations with sister business-units (e.g., Kirzner, 1997). Managers, using their unique knowledge of their respective business-units, were thus able to recognize some subset of these activities as potentially synergistic (cf. Shane, 2000). This process of discovery and exploitation of opportunities by individuals with unique understanding of these opportunities represents the essence of entrepreneurship, and reveals the general manager as the corporate entrepreneur (Schumpeter, 1934; Penrose, 1959; Kirzner, 1997; Venkataraman, 1997; Shane, and Venkataraman, 2000).

Conclusion

This study explores how managers in related-diversified firms capture corporate value in dynamic markets. The rationale is that organization and strategy research have emphasized the sources of potential synergies, but pay little attention to the processes by which these potential sources of synergy are realized. Also, although these perspectives have validity, they often represent an under-socialized view of corporate managers and their actions. Moreover, they become particularly problematic in dynamic market contexts and in knowledge-based industries, as the sources of potential synergy may change. Consequently, processes to reconfigure the resources and capabilities of the corporation into new sources of synergy may become much more salient to capturing corporate value than the actual sources of synergy themselves. Accordingly, this study focuses on corporate value that is realized through the recoupling processes by which temporary collaborations (i.e., synergy initiatives) are discovered, adapted and implemented by the business-units.

There are several major findings. High-performing cross-business synergy initiatives originate from within the business-units, are based on experiential learning, are recognized,

selected, adapted and formalized by the general managers of the business-units, and have a strong organization implementation (i.e., significant reallocation of resources and modularity). Second, there is a new and unexplored unit of corporate governance that we call the multi-business team. Specifically, this research suggests that one of the important roles of the multi-business-team is to adjudicate the types of cooperative activities (i.e., synergy initiatives) that the business-units should engage in with each other. This suggests a different governance structure than has been characterized as optimal for related diversified firms (e.g., Hill, et al., 1992). This study then suggests an important role that the corporate executive has in building the team of general managers and structuring the context in which they operate. It also indicates the importance of participation by the general managers in creating strategy. In addition, this study highlights another critical role of the corporate executive, which is to assemble a set of businesses within the boundaries of the firm that are likely to possess a rich set of potential synergies.

At a more fundamental level, this paper adds to our understanding of the nature of the corporation and of strategy. Specifically, this study argues that the M-form, in addition to providing a more efficient and flexible transacting environment than is available in the market, also provides a means for recombining resources into new value-creating strategies. Consequently, the M-form is seen as creating more opportunities for revenue enhancements, in addition to the cost savings that are derived from efficiencies, than are available to individual firms contracting in the market. Moreover, the value-creating potential that can result from resource recombination may, in dynamic markets, have far more value-creating potential than cost savings that result from efficiencies. Accordingly, this study brings arguments related to firm evolution and growth (e.g., Schumpeter, 1934; 1942; Penrose, 1959) back to the forefront of

corporate strategy. Moreover, this research provides insight into corporate entrepreneurship in that it examines, from a corporate perspective, the “*sources* of opportunities; the *processes* of discovery, evaluation and exploitation of opportunities; and the set of *individuals* who discover, evaluate and exploit them” (Shane, and Venkataraman, 2000,: 218 italics in original). However, while this emergent theoretical framework is promising, it nonetheless awaits empirical test.

Footnotes

(1) Of the earlier studies that find few corporate effects (and/or business-unit effects), they often included single-business firms in their analysis – for which no corporate effects would be observed. Likewise, some early studies focused exclusively on manufacturing companies, which according to McGhann and Porter (1997) have some of the lowest observed corporate effects. Consequently, there are often sampling and statistical issues in these studies with regard to the specific measurement of corporate effects.

(2) Knowledgeable informants are those informants who had direct experience with the initiative. Typically these included all the corporate executives and general managers that were interviewed and a subset of the within business-unit informants (BUI’s).

(3) Vertical had recently completed a due diligence process associated with the merger that created the two business-units. Consequently, the corporate executives felt that they were in a good position to understand the potential synergies that existed between the two business-units.

Table 1: Description of Case Data

Pseudonym	AUTUMN	DATAMAN	SYMBOL	ADLIB	BEAN	VERTICAL
Market	Enterprise	Enterprise	Consumer	Consumer	Infrastructure	Infrastructure
Age	Founded 1982	Founded 1967	Founded 1982	Founded 1982	Founded 1995	Founded 1990
Size Revenue	\$ 950 million	1.6 billion	\$950 million	\$ 1 billion	\$ 1.2 billion	\$ 1.2 Billion
Size Employees	3400	900*	4000	2900	3000	5500
Informants	14	11	14	9	12	10
Business Units	5	3	5	3	4	2
High Performing Initiative	Standard Platform (Phoenix)	New Business Collaboration (Apache)	Bundling (Athena)	Bundling (Lion)	Common Feature (Falcon)	Common Feature (Knight)
Low Performing Initiative	New Business Collaboration (Avatar)	Shared Services (Pueblo)	Bundling (Zeus)	Standard Platform (Tiger)	New Business Collaboration (Eagle)	Common Feature (Chariot)

Note: High- and low-performing synergy initiative names that are in parenthesis are pseudonyms for the project code names

* The Dataman SBU has 450 employees. The number was doubled to 900 to make it more comparable to the other multi-business organizations, which are standalone corporations (i.e., to account for services that the Dataman SBU receives from the corporate parent).

Table 2: Synergy Initiative Performance

Case	Pf	Initiative	CE	G M	Result	Quotes
ADLIB	H P	Bundling	7	7	Captured near monopoly position in target market. Model replicated for other point product bundles	<p>“I think they did a fabulous job” (GM)</p> <p>“...There was just three of them, driving what turned into these tens, and tens and hundreds of millions of dollar business. It’s like woo!” (GM)</p> <p>“In this case the sum of the parts is bigger than the whole.” (BUI)</p>
	L P	Standard Platform	4	3	No platform yet. Initiative recently scaled back dramatically	<p>“It’s schizophrenic and fragmented” (GM)</p> <p>“I believe right now it is in the stages of grief” (GM)</p> <p>“I think a lot of people are still confused. There’s definitely a lot of eye rolling when you bring Tiger up.” (GM)</p>
AUTUMN	H P	Standard Platform	9	8	New product release gaining momentum. Cross BU development process being replicated for other projects	<p>“...A couple of [performance] measures. One is the speed to market...excellent...there are no significant quality issues...pretty darn successful.” (CE)</p> <p>“It came out exactly the day it said it would...its got...features in it that are on target with corporate strategy. I think it was really darn good.” (GM)</p>
	L P	New Business Collaboration	2	4	New business failed to gain customer acceptance	<p>“Avatar was a bust.” (GM)</p>
BEAN	H P	Common Feature	10	8	Highly successful implementation and product sales	<p>“The initiative was successful because of what it yielded...what came out the other end was this totally great technology...and these tools around it for our customers to use that we could have never dreamed of.” (GM)</p> <p>“This product shaped the very nature of our company.” (CE)</p>
	L P	New Business Collaboration	2	3	No internal objectives meet	<p>“Not very successful...” (GM)</p> <p>“If we had more active participation from the other BU it would have been successful.” (BUI)</p>
DATAMAN	H P	New Business Collaboration	8	8	Generated \$170 million first year, on track for \$400 million this year	<p>“It is getting so successful that it could now distract from the other parts of the business.” (CE)</p>
	L P	Shared Services	4	4	No product associated with it	<p>“It is just a constant battle...” (GM)</p>
SYMBOL	H P	Bundling	9	9	Point product market shares went from 30% to 80% bundled	<p>“Well I mean the initiative is actually hugely, was hugely successful...we’ve basically taken out a competitor who...was threatening to put us away.” (GM)</p>

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	L P	Bundling	6	5	No product has come out yet.	“The ability to execute it is the issue.” (GM)
VERTICAL	H P	Common Feature	9	8	Features delivered on time with high quality	<p>“Highly successful...” (GM)</p> <p>“Revenue will continue to grow and we will continue to use parts of this technology for other features as well...it will definitely ramp up exponentially.” (GM)</p> <p>“So Knight became a very important initiative in the company, driven by the technological change in the marketplace and by competitive pressure.” (CE)</p>
	L P	Common Feature	2	1	Resulting products on market but not generating much revenue	<p>“We use this as a comparison now of how not to do it when we create new cross-BU initiatives” (GM)</p> <p>“I would say that Chariot overall was a reasonably unpleasant experience for the people that worked on it” (BUI)</p> <p>“Chariot was not something that was fully fleshed out in terms of usability and practicality from a customer perspective” (BUI)</p>

Pf: Performance LP: Low-performing synergy initiative HP: High-performing synergy initiative
 CE: Corporate executives GM: General managers BUI: Business-unit informant

Cross-Business Synergies

Table 3: Business-unit Origin

Case	P f	Origin	Description	Quotes	% CE - GM Ident
ADLIB Bundling	H P	1 BU	Maverick SBU in Europe came up with an idea to create an 'ad hoc' bundle of products from multiple BU's to extend a tight marketing budget	"It was an evolutionary process. When you think about it, it started out as a real basic idea in Europe that turned into, let's try this everywhere" (BUI)	100 / 0
AUTUMN Standard Platform	H P	3 BU's	Product managers in 3 BU's needed improvements to existing standard platform to evolve their products	"It was a large scale adjustment to Avatar" (GM) "...The opportunity of course is hundreds and millions of dollars because this is how you grab upgrade revenue...you move people to subscriptions. That was the opportunity" (GM)	95 / 0
BEAN Common Feature	H P	2 BU's	One BU engineer encourages another engineer to help him develop a prototype for a large customer	"A major customer wanted personalization. Sally (the project leader) really pushed and got a couple of engineers assigned to start prototyping and build a very simple example of the personalization feature." (CE)	91 / 0
DATAMAN New Business Collaboration	H P	2 BU's	GM's discussed common threat to their core businesses and persuaded the CE's to create a new business to address it	"What we (the GM's) did was make the decision to make the new business a separate [business-unit]" (GM) "the business was being significantly damaged by the select few complementors who were gouging customers" (CE)	91 / 0
SYMBOL Bundling	H P	1 BU	Maverick SBU in Europe created an 'ad hoc' bundle of BU products	"Some of our regions were starting to bundle our products together" (BUI)	100 / 0
VERTICAL Common Feature	H P	2 BU's	Two small groups of architects from the BU's, which had each been working with different customers, combined efforts to enhance their products with complementary features	"This one...came through the architects...they listened enough to the customers and now figured out that the best thing to do is really provide Knight" (GM) "It was really a groundswell...the architects from the two BU's...listened to the customer...figured this thing out...and they just started meeting" (GM)	100 / 0
ADLIB Standard Platform	L P	CE	CE advocated a new cross-BU standard platform	"Well Bob (CE) said we need one rational strategy....we need to do Tiger" (GM) "Well Bob (CE) helped trigger it initially. It came...as we need to do Tiger" (BUI)	100 / 0
AUTUMN New Business Collaboration	L P	CE & GMs	CE chartered a team within a BU to create a new business to reach new customers	"There was a corporate-wide initiative which was needed to find more areas of overlap between groups." (GM)	82 / 0

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BEAN New Business Collaboration	L P	CE	CE articulated his vision for the next great technology that the company would collectively develop	“So the history of this is that about 6 months ago, Thomas (CE) said we need something new in this company. And he said, “I think I know what it’s going to be, and I am going to call it Eagle. I have a vision for how we will create an integration solution that is substantially different from anything that is out in the market today” (GM)	100 / 0
DATAMAN Shared Services	L P	CE	CE directed GM’s to share software testing resources	“Pueblo came from me” (CE)	88 / 0
SYMBOL Bundling	L P	CE & GM	CE changes BU’s (including recent acquisitions) to facilitate the bundling of a unique customer solution	“...You put Symbol, [company B] and [company C] together and you see that all three companies have these complementary initiatives going on...all of our competitors are struggling with it because they don’t have the breadth of product and breadth of resource to pull it off, but you put us together and wow, this might really be possible now” (GM) “I was the person who first proposed Zeus...a solution integrating a number of products” (CE)	82 / 0
VERTICAL Common Feature	L P	CE, GMs and CTOs	CE held a joint brainstorming session with GM’s and CTO’s, right after a merger, to identify and create an initiative that would leverage the 2 BU’s products	“Chariot was seen as a poster child project between the two groups when we did the merger. Now that we’re the same company, we can really do innovative things and innovative thing number one was Chariot” (BUI)	90 / 0

Pf: Performance

HP: High-Performing synergy initiative

LP: Low-Performing synergy initiative

BU: Business-Unit

% CE-GM Ident: Percentage of CE & GM Informants Identifying the source² / number of informants who disagreed

BUI: Business-Unit Informant

CE: Corporate executive

GM: General Manager

CTO: Chief Technical Officer

Cross-Business Synergies

Table 4: Experimentation

Case	Pf	Num	Description(s)	Quotes
ADLIB Bundling	H P	2	Unplanned experiment of ad hoc bundling of products in Europe. Planned experiments launched to explore parameters necessary to formalize initiative.	“We put together a pilot of Lion in North America...and the test went well...so we, the GM’s said, hey it’s a good idea to go ahead and do this” (GM)
AUTUMN Standard Platform	H P	2	Two prior versions of standard platform had been developed to support point products in the individual business-units.	It’s actually about the third time that we’ve done a product like Phoenix” (GM).
BEAN Common Feature	H P	1	Prototype for a large customer to generate better understanding of the technical issues of the common features.	“our services business-unit and a couple of developers from the platform business-unit got together and developed a prototype for one of our large customers” (CEO) “The engineers from two BU’s built a prototype of Falcon to meet the needs of a particular customer” (BUI)
DATAMAN New Business Collaboration	H P	1	Planned experiment of creating an internal group with the charter to put underutilized resources to more product use.	“There was a lot of valuable technology in the business-units that was not being leveraged as it was not considered by them to be ‘core’, so I proposed that the business let me form an intrapreneurship group to see if some value could be realized by applying some focus” (GM, Dataman)
SYMBOL Bundling	H P	1	Planned experiment (i.e., prototype) to determine appropriate product and market choices for the bundling initiative.	“We got a small core group of people to figure out what we needed to put together in order to make this a reality...we did a lot of behind the scenes work” (GM) “...And what [disagreement] forced us to do which I don’t think was a bad thing was we had to do an incredible amount of research...we basically had to do everything so we had answers to every issue raised” (BUI)
VERTICAL Common Feature	H P	2	First experiment was unplanned as it was failing initiative to develop a different common feature. Second experiment was a formal prototype of the common feature in two products from the two business units involved in the initiative.	“We used Chariot (name of a previous attempt to implement a prior common feature initiative) as a comparison of how not to do it when we created Knight” (GM) “Most of our products are very technical...not user touchable...so the engineers in the BU’s designed it and wrote it up a little bit” (BUI)
ADLIB Standard Platform	LP	None		
AUTUMN New Business Collaboration	LP	None		
BEAN New Business Collaboration	LP	None		

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DATAMAN Shared Services	LP	None		
SYMBOL Bundling	LP	None		
VERTICAL Common Feature	LP	None		

Pf: Performance

HP: High-performing synergy initiative

LP: Low-performing synergy initiative

Num: Number of experiments

CE: Corporate executive

GM: General manager

BUI: Business-unit informant

CEO: Chief Executive Officer

Table 5: Engaged Multi-business Team Decision Process

Case	Pf	Who made Decis-ion	GM Agree-ment	GM Disagree-ment	Choice Process	Quotes / Description
ADLIB Bundling	H P	MBT	High	High	Debate w/ consensus	<p>“Lion was championed by a large number of people” (GM)</p> <p>“...Some of the biggest issues or challenges were how to build it, what was the minimum to make it successful. Did it need a common installer? Did it need common documentation? What should the pricing look like in terms of how you would discount each of the products and then what the revenue attributions back would look like? Those were a lot of the first issues that had to get sorted out” (GM)</p> <p>“We had to fight about the issues” (GM)</p>
AUTUMN Standard Platform	H P	MBT	High	High	Debate w/ consensus	<p>“I’d say everyone pretty much bought into Phoenix” (CE)</p> <p>“There were a number of features that were planned for Phoenix that people questioned as “Do we really need to do that?...some of us believed the resources could have been better spent by doing a minimal Phoenix release and focus on adding value to the other BU products” (BUI)</p>
BEAN Common Feature	H P	MBT	High	High	Debate w/ consensus	<p>“Everyone was going, it’s about time you got this thing started!” (GM)</p> <p>“[CE] suggested that we [the GM’s] pass Falcon to Kathren (GM1). I (GM2) was initially resistant to that, and eventually understood the rationale for doing it, and we gave her Falcon. (GM)</p>
DATAMAN New Business Collaboration	H P	MBT	High	High	Debate w/ consensus	<p>“No one was opposed to doing Apache” (GM)</p> <p>“[The GM’s] mood initially was we’ve got our mainline products to get out and why are you trying to jerk good skills onto this when we need to get our mainline commitments done that you keep beating me up about” (CE)</p>
SYMBOL Bundling	H P	MBT	High	High	Debate w/ consensus	<p>“The decision to pursue it was clear [to the GM’s because we knew...we needed to go to the Athena strategy because of...what our competitors were doing in the market...we were being forced down that path” (GM)</p> <p>“...It was certainly tough going in the early stage because it was hard to convince people to see the value in doing that, you know it’s something different and it was hard convince people it was the right thing to do” (GM)</p> <p>“Everybody opposed Athena” (GM)</p>
VERTICAL Common Feature	H P	MBT& BU CTO	High	High	Debate w/ consensus	<p>“So, Sally (GM) and I agreed that we absolutely needed to do Knight” (GM)</p>

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						<p>“It began first of all by just saying within our BU’s, we need this to be competitive as our sales forces told us. We have an idea of how to implement it, let’s go implement it” (BUI)</p> <p>[BU A’s] partners are [BU B’s] competitors and vice versa...so the hardest thing has been figuring out exactly how to ship it, and license it and distribute it in a way that doesn’t piss off one of the groups that owns half of it” (BUI)</p> <p>“We can’t keep everyone 200% busy...you have to convince the general managers that this is high enough priority...early on...you get a little bit of an argument over than” (BUI)</p> <p>“You know, its really being driven by the BUI’s from the ground up – grassroots” (GM)</p>
ADLIB: Standard Platform	L P	CE	Low	Low	Top-down	<p>“I remember the first executive team meeting...the engineering team made this pitch...I mean this looks weird. This looks like a hammer looking for a nail. I don’t understand what the market opportunity is” (GM)</p> <p>“Hard to oppose because no one knew what it was” (GM)</p> <p>“Tom (GM) was not excited about it because it really wasn’t serving his customers’ immediate need, he was already serving his customers’ need. Sally (GM) was not excited about it because it was one more thing she had to deal with” (GM)</p> <p>“...Thomas (CE) was the driver” (BUI)</p>
AUTUMN New Business Collaboration	L P	CE	Low	High	Top-down	<p>“So what I’ve told my staff is we’re going to have one Avatar” (CE)</p> <p>“We are still arguing over who owns it, where it should be, should I do it, should some other division do it, how do it get the resources? That’s an ongoing argument” (GM)</p> <p>“They liked the idea, but they felt others should do the work” (GM)</p> <p>“...the executive staff of the company thinks that we need Avatar, but the divisions heads are going, yeah well OK” (GM)</p>
BEAN New Business Collaboration	L P	CE	Low	Low	Top-down	<p>We were getting criticism from customers, analysts and board members for lack of vision. Needing a vision, [CE] tried to jumpstart it, made one up, and said, “here’s Eagle”. Since no one stood up to him and told him “you’re smoking crack,” this thing kind of got some legs” (BUI)</p> <p>“This thing was like solving world hunger” (BUI)</p>
DATAMAN Shared Services	L P	CE	Low	Low	Top-down	<p>“No one ever opposed it. They always said, “yes, great idea but..” (CE)</p> <p>“People keep trying to pin it on me, but I am hiding” (GM)</p> <p>“There wasn’t a clear set of measurements...a clear driver...it was easy for the BU’s to get distracted “ (CE)</p>

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SYMBOL Bundling	L P	CE	High	Low	Consensus with qualification	<p>“Yes, people opposed Zeus and I believe there is still passive-aggressive behavior out there” (GM)</p> <p>“There’s some other business decisions and discussions that still have to be resolved that are not necessary resolved yet” (GM)</p>
VERTICAL Common Feature	L P	CE	Low	Low	Top-down	<p>“Once we decided it was a good idea, in some respects, it was oversold or pre-sold in that we’re going to do this. It was a committed thing and we’re like, let’s make it happen. We all agreed it was a good idea, so make it happen.” (BUI)</p> <p>“Well, its nice to have Chariot but it is not on our list of priorities” (BUI)</p> <p>“At that point Fred (CE) made the decision” (BUI)</p>

Pf: Performance

HP: High-Performing synergy initiative

LP: Low-Performing synergy initiative

MBT: Team of the General Managers of the Business-Units

CE: Corporate Executive

GM: General Manager

BUI: Business-Unit Informant

Table 6: Strong Organization Implementation

Case	Pf	Dedi-cated Core Team	Dedi-cated Team Leader (TL)	Dedicated Team Members	Stand-ardized Processes	Coord-inating Mechan-isms*	Loc	Quotes
ADLIB Bundling	H P	Y	Y	Y	Y	Few	1	“[GM A] assigned it to [BUI 1] to go make sense of this...and [she] was given responsibility to run a small team and then that was when things started getting rational.” (GM)
AUTUMN Standard Platform	H P	Y	Y	Y	Y	Few	1	“So in a previous cross-unit initiative we stumbled badly...This time, I actually put in place a director who was responsible, she was responsible for making sure that there was coordination between the other BU’s and Phoenix” (CE) “The Phoenix team determines its release plan and communicates that to the verticals. Based on that the verticals build their plan around it” (GM)
BEAN Common Feature	H P	Y	Y	Y	Y	Few	2	“We, the GM’s and CE, felt like Charlie (GM), because he was separate in a separate business unit, behind that firewall, would be able to put additional resources on it that I could not afford to, and give it the focus to drive that business” (GM)
DATAMAN New Business Collaboration	H P	Y	Y	Y	Y	Few	1	“We formed the new BU and had a dedicated leader that was focused solely on Apache” (CE)
SYMBOL Bundling	H P	Y	Y	Y	Y	Few	1	“...It’s the integration team...the main responsibility of the integration team is to define what are the standards, right, what is the installation. And then the various teams or technologies that get brought in and pulled into Athena need to do their own changes to adhere to the new standards” (GM)
VERTICAL Common Feature	H P	Y	N	Y	Y	Few	2	“We started actually having a series of technical meetings with several folks from the [A] group and [B] group and we Knight to solve all this problems.” (BUI) “It was ad hoc...Fred (BUI CTO)...would call these design fests which would last 2-3 days

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								sometimes...then the technical people would go back to their BU's and digest it and some implementation would get done...followed by some significant documentation...and then they would go back for 2-3 days more of designing" (BUI).
ADLIB Standard Platform	L P	N	N	N	N	Many	1	<p>"Loose, loosely led. It was a real rough challenge...you have all this competing business needs and competing opinions and you didn't have...authority to go make decisions...yet everyone on this task force had an opinion.(GM)</p> <p>"Then there was this huge task force, I means task force doesn't really do the effort justice, it's not a big enough word." (GM)</p> <p>"in this particular case responsibility goes right to Fred (CE). And that's not the appropriate level responsible adult" (GM)</p> <p>"We had one of the milestone reviews...it was in a room twice this size that was standing room only" (GM)</p> <p>"It was everybody's second job" (BUI)</p>
AUTUMN New Business Collaboration	L P	Y	Y	Y	N/A	None	1	"There wasn't any coordinating mechanism. It was just everybody for themselves" (CE)
BEAN New Business Collaboration	L P	N	N	N	N	Many	2	"... so there were people from [BU A], [BU B] and [BU C] all working on it over the course of the summer...the project had a very difficult time because you know it was a cross divisional thing...Trying to do a brand new initiative like this and especially one that wasn't terribly well defined and trying to do that across business units...is a very very difficult thing to do" (BUI)
DATAMAN Shared Services	L P	N	N	N	N	One	3	<p>"Pueblo is a collaboration of different teams" (CE)</p> <p>"There are several people that own Pueblo" (GM)</p>
SYMBOL Bundling	L P	N	N	N	N	Many	5	<p>"...We call them summit meetings that happen every two weeks that we've just started where everybody, that is representatives from BU's, invited to attend and we talk about...what are plans are" (GM)</p> <p>"...There's a billion coordinating mechanisms, a billion, there's 20 mechanism's in place in place.</p>

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								We have 4 locations all trying to take advantage of this, so now you've got this situation where you've got to make sure you're coordinating on a very regular basis or in fact you won't converge properly" (GM)
VERTICAL Common Feature	L P	N	N	N	N	One	2	"They didn't work together as a team...it was [BU A] produced their part of Chariot, here's the API and here's the technology...and [BU B] are sitting there like, oh this is a bad way to do this." (CTO, BU A)" "It organized .under the normal producer consumer relationship" (CTO, BU B)

Pf: Performance

HP: High-Performing synergy initiative

LP: Low-performing synergy initiative

CE: Corporate Executive

GM: General Manager

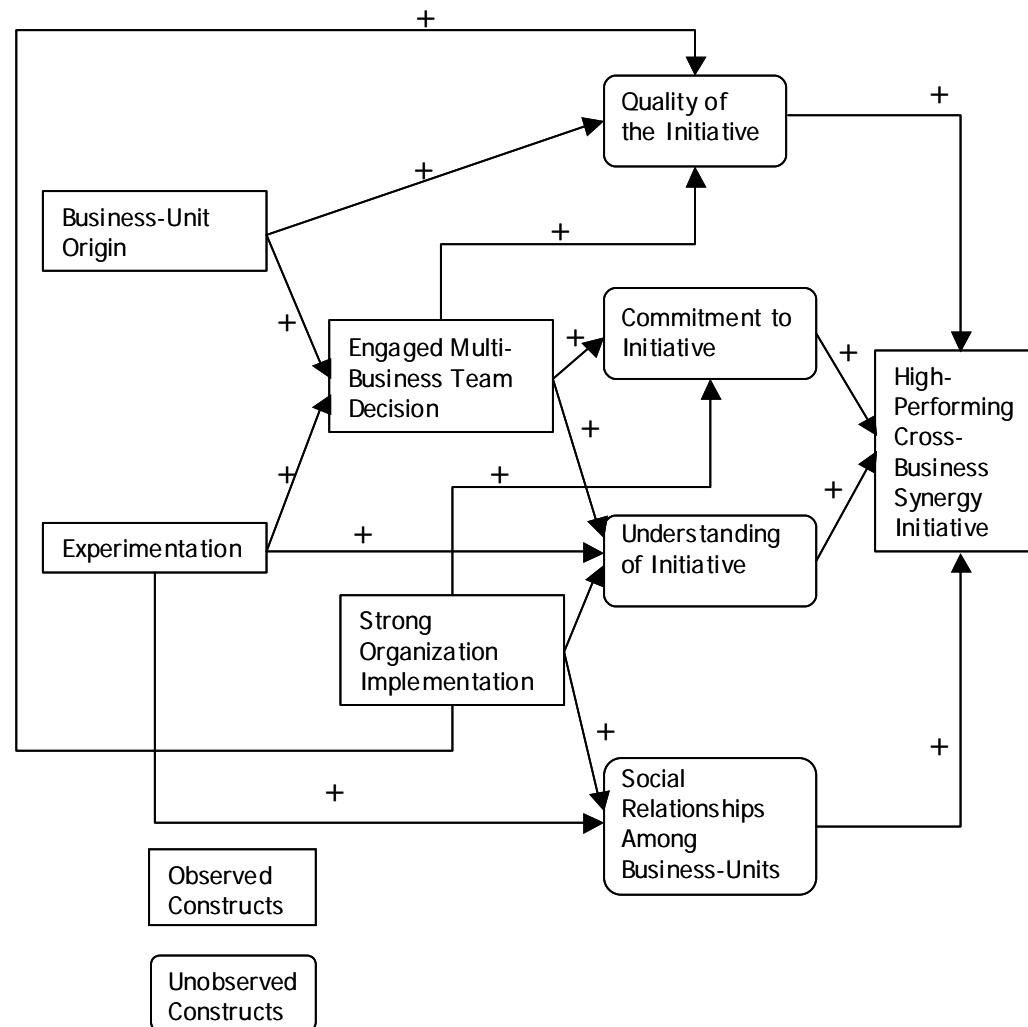
BUI: Business-Unit Informant

CTO: Chief Technical Officer

*Few: 3-5 mechanisms

Many: More than 5

Figure 1: Model of synergy realization



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