C E Center for Effective Organizations

The Value Adding Corporation

CEO Publication
G 92-4 (207)

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The concept of the American Corporation has been evolving for some time. By the early 1980s a consensus had developed around the different types of corporations and their organizations. As the decade closed, however, that consensus had all but unravelled. In its place rose a variety of proposals for rethinking the nature of the corporation (Jensen, 1990). Unfortunately, most of these proposals are presented as alternatives to the current corporate forms. Instead, this chapter presents the argument that these additional forms will exist along with the older forms. The 1990s are seen as a period of increasing variety in the forms of institutions through which economic activity will be conducted. The variety represents differing types and amounts of value that are added by the corporation to its business units.

The chapter begins by describing the original consensus. Next the changes in strategy are presented which are leading to changes in corporate organization. The variety of corporate forms resulting from the changes are then placed in a strategy and organization framework.

Strategy and Organization

The relationship between strategy and structure was first articulated by Alfred Chandler in his historical study of American enterprises (Chandler 1960.) Up until that time, managers debated the pros and cons of functional versus product organizations. Chandler showed that firms in a single business used a functional organization. When the company diversified into several businesses, the multi-divisional profit center organization was created. Chandler's work established the concept that different strategies led to different organizations. Both functional and product organizations were appropriate for their respective strategies.

The conglomerates appeared in the 1970s. Instead of using internally generated business opportunities like General Electric and Procter and Gamble, companies like Textron, Teledyne, ITT and Litton used acquisition to diversify into new business areas. They bought and sold companies. They came to administer a portfolio of unrelated businesses through a holding company structure. Some other types of organization were suggested but a consensus developed around the three classical models shown in Table I.

The next step was the expansion of structure to the concept of organization. Organization was considered to consist of compensation policy, career paths, and control processes in addition to structure. These dimensions also fit with the strategy and the structure (Galbraith, 1987). For example, relationships were discovered between strategy and careers (Pitts, 1976) and strategy and

compensation (Kerr, 1985). Organization became an aligned set of policies which fit with each other and with the portfolio strategy (Galbraith and Kazanjian, 1986.)

Table I

Strategy	Growth	Structure
Single Business	Internal	Functional
Related Diversification	Internal	Divisional
Unrelated Diversification	Acquisition	Holding Company

A relatively complete display of organization structure and strategy is shown in Table II. In addition to organization structure, the degree of centralization, the size of the corporate staff as well as the staff's role are listed as policy headings. The degree of centralization varies from high to low when moving from the functional to the holding company model. The control in the functional structure is exercised through the line organization. But in the multi-divisional organization, the control is exercised, in part, through the corporate staff. Indeed the size and role of the corporate staffs are distinguishing features between the divisionalized and holding company organizations. The staffs of divisionalized companies are large (1700 at Hewlett-Packard, 3500 at Procter and Gamble) and active. They review division plans and guarantee competence of their functions in the divisions. They set company policy for their functions. They strive for a single policy for all divisions. Indeed they are to add value by using their expertise, longer time horizon and total company view to formulate functional policy in one place for all divisions thereby reducing duplications across divisions. By contrast, the size of corporate staffs in the holding company are a few hundred, are mostly financial, and offer service to the divisions.

Table II

Strategy	Structure	Capitalization	Staff	Staff Role
Single	Functional	High	Small	Policy
Related	Divisional	Moderate	Large	Policy/Review
Unrelated	Holding Company	Low	Small	Service

The control processes also vary directly with the portfolio strategies of the company. These processes are shown in Table III. The control system of the functional organization is a cost center process, while the divisional organization is managed through a profit center process. The more autonomous divisions of the holding company are managed as investment centers.

Table III

Strategy	Control Data	Type of Control
Single	Cost	Operational
Related	Profit	Strategic
Unrelated	Investment	Financial

The corporation exerts different types of control over the units that report directly to it. The functional organization exerts three types of control over its cost centers: operational, strategic, and financial. A cost center is subject to operational control, such as schedules, forecasts and day-to-day activities. This operational control is delegated to divisions in the multi-divisional company. The corporation maintains strategic control over the divisional profit centers. Strategic control is the designation of products, markets, technologies and charters to be pursued by the divisions. It, thereby restricts the domain of its divisions such that they cannot compete with each other, nor duplicate activities. These strategic decisions are delegated to the divisions in the holding company. Whereas the functional organization exerts all three types of control, the holding company exercises only financial control. It specifies returns on investments, asset levels, return on assets, inventory turnover ratios and so forth. As a result, the holding company requires only a small corporate staff.

The human resource policies also vary with the portfolio strategy. The human resource policies are shown in Table IV. The compensation policies vary from company-based salary structures for the single business and divisionalized companies, to industry-based compensation for the divisions of a holding company. That is, managers in different divisions of a related business company receive the same salary for the same level job. Managers in a holding company receive salaries defined by the industry in which the division competes, rather than a company-defined salary structure. Managers working in divisions of a holding company receive much higher amounts of variable compensation than managers of divisionalized companies. Division managers of a holding company may receive half of their take-home pay in the form of a bonus. Conversely, managers of a divisionalized company may only receive 10 to 30 percent of their salary as bonus. If managers in functional and divisional companies do receive a bonus, it is usually based on company profits rather than divisional profitability. The divisional general manager may receive some mixture of divisional and company-based bonuses. The division manager of a holding company receives a bonus which is based only on the performance of his or her division.

Table IV

Strategy	Compensation	Variable	Bases	Measures	Career
Single	Company	Low	Company	Subjective	Comp.
Related	Company	Medium	Div./Co.	Sub./Obj.	Comp.
Unrelated	Industry	High	Division	Objective	Div.

The performance measures on which salary and promotion are granted increase in objectivity as strategy changes from a single business to an unrelated portfolio of businesses. The manager of a division in a holding company is measured strictly on meeting financial targets. The manager of a cost center in a single business is measured on budget performance, but may also be judged on other characteristics of performance such as cooperation as well as personal goals.

The line managers can expect different careers in the different organizations. The single business and related diversified company managers tend to move throughout the entire organization. The managers in the holding company stay within their own divisions. As a result, the management development activity is centralized in single business and related business organizations. It is decentralized to the divisions in the holding company. For division managers, the holding company may use external executive recruiting firms.

The key to success for each of these models is the alignment of all of the policies with the strategy. Table V shows all of the policies and contrasts them for the two diversified models. Since the businesses are related in the divisional model they can share resources, people, technologies, and ideas. Hence the divisions are not completely autonomous. A large corporate office moves resources and people across divisions. The staffs insure that there is enough commonality of policy so that interdivisional transfers can take place effectively. Since there is resource sharing and a lack of autonomy, it is difficult to get objective measures of divisional performance. These companies use subjective and multi-dimensional performance measures. They do not use too much variable compensation. When they do use variable pay they use a combination of corporate and division profitability as the performance measure. These policies form a self reinforcing system. They fit together. Indeed the high performing companies, both divisional and holding, are those that have aligned their policies and their strategy (Nathanson and Cassano, 1982).

Misalignment leads to ineffective performance. If related companies paid large bonuses based on an objective measure of division performance, the motivation of division managers would increase but their behavior would be dysfunctional. They would be motivated to be independent, to look out for their own division and to be reluctant to share resources and adopt common policies. Similarly, if a holding company adopted a compensation policy designed for a related

business strategy, it would not be using all of the motivational leverage it could use for autonomous, measurable businesses. The task of the organization designer was to determine the company's diversification strategy and then align structure, processes, and practices to fit with that strategy.

Table V

Strategy	Related	Unrelated
Structure	Divisional	Holding Company
Centralization	Moderate	Low
Staff	Large	Small
Staff Role	Policy/Review	Service
Control	Profit Center	Investment Center
Control Type	Strategic/Financial	Financial
Compensation	Company	Industry
% Variable	10-30%	50% or more
Measures	Subjective/Objective	Objective
Careers	Company	Division

A great deal of empirical attention has been focused on comparing the economic performance of related and unrelated diversified companies. The early studies found that the related diversifiers outperformed the unrelated conglomerates (Rumelt, 1974). In Search of Excellence popularized the idea with its lesson that the "'excellent' companies stick to their knitting" (Peters and Waterman, 1982). The idea that businesses must be related is the conventional wisdom both on and off of Wall Street today. However, there is very little support for the conventional wisdom in the subsequent studies. A review of 23 studies shows no consistent evidence that related business diversifiers outperform the unrelated ones. (Grant, Jammine, and Thomas, 1988.) Indeed the British studies show the unrelated diversifiers led by Hanson Trust, outperform the related businesses. A majority of the recent studies find no difference in performance whatsoever.

One reason for the lack of performance differences has been suggested by a more sophisticated recent study (Grant, Jammine, and Thomas, 1988). They have found a curvalinear relationship between diversity and performance. The relationship is shown in Figure 1 below. They suggest that there is an optimal level of diversity that is achieved by operating in 3 or 4 different industries. Another study using different measures of diversity also found an optimum but theirs was at 2 business areas (Nathanson and Cassano, 1982). Still another study focused

only on conglomerates and found that the high performing conglomerate limited its diversity to 3 or 4 general business areas (Dundas and Richardson, 1982). So there appears to be some support for the fact that unrelated diversification administered through a holding company can be a viable corporate form. It can even be a successful form when business diversity is limited to 3 or 4 industries.

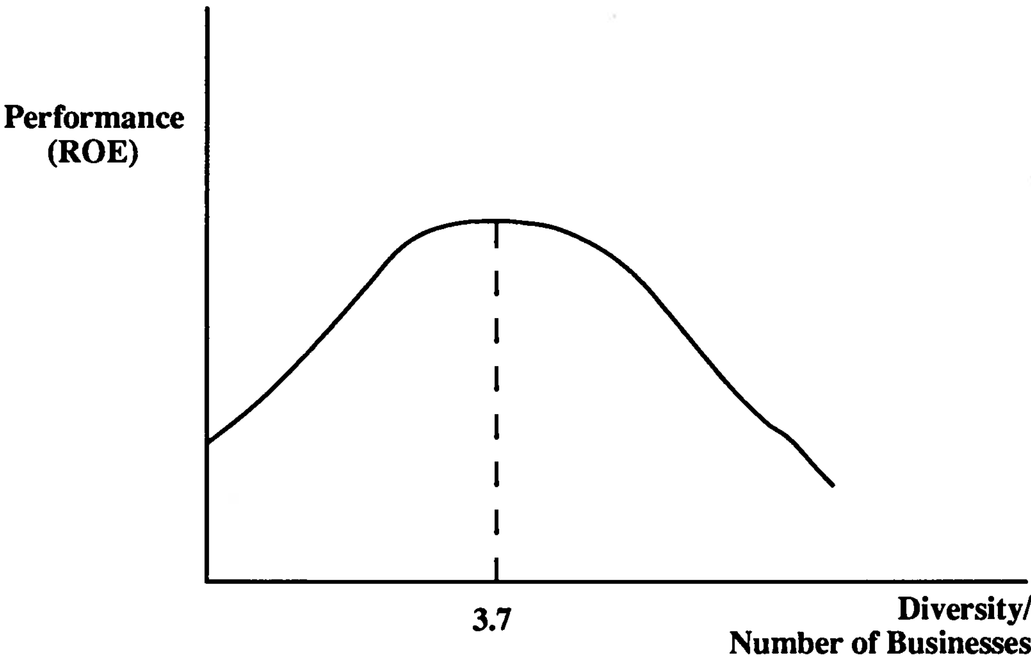


Figure 1

The author's belief is that the conglomerate is a viable form of organization if the management development issue can be resolved. That is, there are instances of successful unrelated diversification strategies that have been implemented by some exceptional individuals. Very wide diversity was executed by Harold Geneen at ITT, Henry Singleton at Teledyne and Lords Hanson and White at Hanson Trust.

The difficulties usually begin when these people retire. Their replacements appear to have been unable to manage the breadth of diversity. It seems that industry has been unable to grow general managers who have the deal making skills and the business intuition which spans many industries. The successful conglomerate appears to be dependent on unique individuals. It has not become an institutionalized form. Successful corporations which have become institutions such as Procter and Gamble and IBM have built succession processes to perpetuate the institution beyond

its founders. This is not so with the conglomerate. Indeed Henry Singleton is planning to liquidate Teledyne rather than groom a successor. Some similar proposals have come from Lord Hanson at Hanson Trust. Perhaps if diversity is limited to 3 or 4 business areas, succession can be accomplished and the institution perpetuated.

So the death of the conglomerate had been greatly exaggerated. There will always be conglomerates albeit in lesser numbers. There will be sons and daughters of Hanson Trust and Carlo DeBenedetti. There will also be the neo-conglomerates which limit themselves to 3 or 4 business areas. There will also be the LBO Partnerships such as Kohlberg, Kravis, and Roberts which are replacing the widely diversified conglomerate. (Jensen, 1990). All of these forms will exist side by side in the 1990s.

In summary, a consensus formed in the 1980s around the three classic corporate strategies and structures--single business/functional organization, related diversification/divisionalized structure and unrelated diversification/ holding company. Organization was expanded from structure to include compensation practices, career paths, control systems and staff policies. The key concept in the design of these organizations was alignment or fit between the organization policies themselves and the strategy (Galbraith, 1987).

When all of these policies were aligned, the company was a high performer (Nathanson and Cassano, 1982). As suggested in the paragraph above, the consensus has begun to unravel. There have been predictions of the disappearance of the conglomerate and their replacement by the LBO Partnerships (Jensen, 1990). The position taken here is that the conglomerate will continue to exist as will the single business type and the divisionalized company. But alongside of them will likewise exist the LBO Partnership, the neo-conglomerate or mixed form and the front/back model. In the next section, these new organizations are presented along with the business forces that are creating them. In addition, a framework for ordering the forms of corporate strategy and organization along a continuum is described.

New Forms of Corporate Organization

The business environment that is evolving is creating some different corporate strategies and in turn corporate organizational forms. These new forms are illustrated in Figure 2 below. In the figure, the new forms are displayed with the classical models along a continuum. The continuum represents portfolio strategies of increasing diversity from a single business to a multi-business, multi-industry LBO partnership.

The continuum also represents decreasing amounts of value which is added to the businesses from the corporation. In order to add different amounts of value, different forms of corporate organization are used. The next sections will describe the new forms.

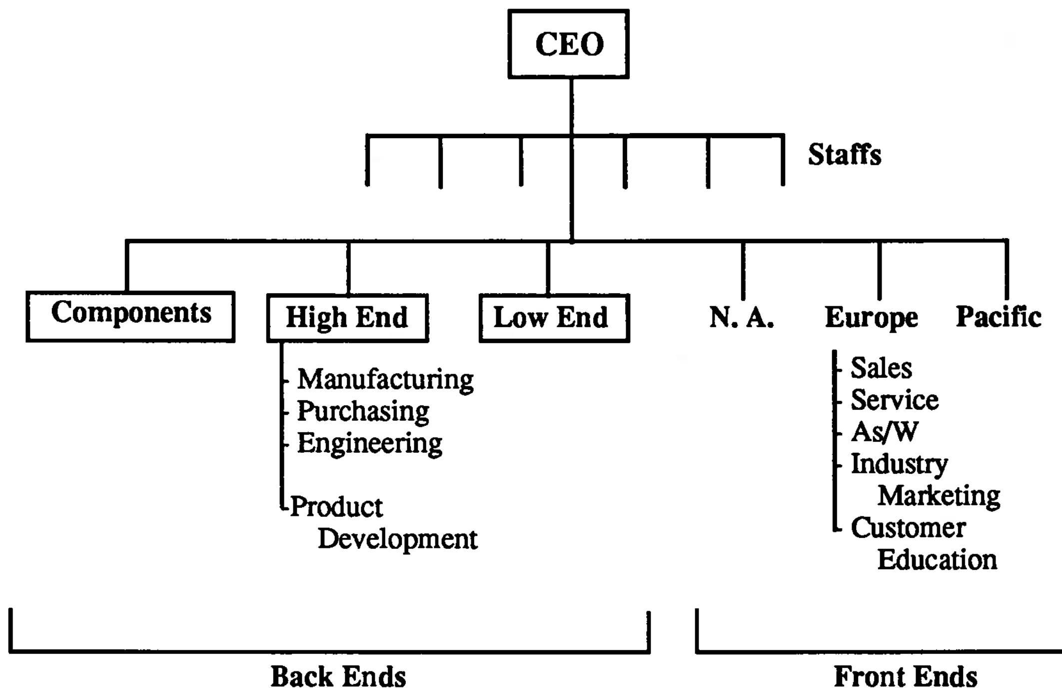
Figure 2
Corporate Strategy and Organization

Strategy	Single	Dual	Related	Mixed	Unrelated	Unrelated
Organization	Functional	Front/Back	Divisional	Cluster	Holding	LBO
Diversity	Low————				——High	Very High
Value Added	High————					——Low

Emerging Front/Back Model

The front/back model is a hybrid form which combines features of the single business form and the divisional profit center model. There is some decentralization around profit measurable units yet there is still a great deal of strategic and operational control exercised from the corporation. The distinguishing feature of the model is the division of activities between a front end or ends organized by customer and/or geography and a back end organized by product and technology. The structure is shown in Figure 3.

Figure 3
Front End, Back End Structure



This form of organization is largely driven by the customer. The strategic forces are listed below in Table VI. As a company grows, it diversifies into several related product lines. If these product lines go to common customers who buy them in a coordinated fashion, there is a good chance that it will adopt the front/back model. In many industries customers are preferring sourcing arrangements whereby they certify fewer supplies and work with them more closely over longer time periods. The supplier organizations in turn organize their front end around these customers.

Table VI
Forces Creating the Front/Back Model

- Buyer Power
- Cross Selling
- Systems Integration
- Sourcing
- Value Added to Service and Software

In industries that are buying complete systems rather than stand alone products there is a need for customer specific expertise and programs. When customers have and use buying power, desire systems integration and prefer to source from a few suppliers, those suppliers feel pressure to organize around the customer.

In addition to the above factors, the firm may see an advantage in offering a full product line, cross sell products and/or bundle them (Porter, 1985, Chapter 12). In all of these cases there is a need for cross product strategies and coordination.

Companies facing the above strategic issues try to align as many functions as possible around the customer or customer segment. However manufacturing usually cannot have a factory for each customer segment. Multiple customers buy the same product. In order to get scale in manufacturing, product development, and component purchasing, a back end of the business is created around products and specialties (like graphics). Hence the firm operates with a product oriented back end and a customer driven front end.

The computer industry is typical of companies organized into front/back structures. Digital Equipment evolved to it from a functional organization. Both IBM and Xerox changed to it from divisional product profit centers in the early 1980s. In all cases, the adoption of the structure was driven by the customer who did not want to see competing uncoordinated product proposals coming from autonomous product divisions. Even as IBM splits apart in the 1990s, it is the

product oriented back end that is creating more autonomous units. All sales to IBM customers still go through a common front end. All of these companies organized so as to present a single face to the customer.

Other industries are also reflecting these strategic changes. Consumer packaged goods producers are also assuming a single face to the customer reflecting the increased buying power of the retail trade leaders such as WalMart. In addition, some retailers are decentralizing buying and promotion decisions to the store level. The manufacturers are creating customer teams involving multiple functions and geographic sales and marketing units to complement the divisional product sales forces.

In many industries the strength of the front end is increasing, The sales function has always been customer and geography oriented. But now more value added is moving to service, customer education, information, and application software. These services are provided by the front end. Indeed Digital and IBM are seeking consulting services, application software, providing systems integration, and even operating the customer's facilities.

The front/back organization is a hybrid. It experiences the need for decentralization because it manages product and market diversity. It adopts quasi-profit centers around the front and/or the back. But the profit centers are not as autonomous as in a related diversified divisional organization. The back is usually the sole supplier to the front who is the sole customer. Although these internal monopolies are being challenged, the product lines and customer segments are operated as a single business. Products are compromised in their stand alone applications so that the product line as a whole is more attractive. Products may need to be announced together and made available simultaneously. The result is considerable strategic and operational control which is exercised by the corporation. However for businesses selling stand alone products and services to fragmented buyers who do not desire sourcing and systems integration arrangements, diversification still leads to the divisional profit center model. But as described below, that classic model is experiencing some strategic change forces of its own which are reshaping its structure and processes.

Related to Value Added

The strategic forces being experienced by related diversified firms are changing the relationship between the corporate offices and the business units. In all cases, there is more decentralization to the businesses and more differentiation of policy across the businesses. The result is that the divisionalized firms are adopting some of the features of the holding company. The forces are listed in Table VII.

Table VII
Forces Reshaping the Divisional Organization

- Level of Competition
- Manufacturing to Service
- Vertical Disaggregation
- Less than 100% Ownership
- Acquisitions and Divestiture

Many industries are experiencing a heightened level of competition because of new entrants, industry shake outs and slower market growth. In these industries the cross functional coordination requirements within a business unit are exceeding the cross divisional coordination requirements for managing a shared capability. There is often a choice of being competitive in an industry and being common across the corporation. Today many companies are choosing to be more competitive and less common.

Another view is that the costs of cross business unit cooperation are too high to be competitive. Porter had identified three costs of sharing capabilities (Porter, 1985, p.331). First is the cost of administering the coordination processes. Often corporate staff units are part of the administrative process. They are often viewed as sources of cost reduction and overhead. Corporate staffs are viewed as luxuries that globally competitive companies can no longer afford.

The second cost is the cost of compromise. In order to share a resource, a business unit must suboptimize and adopt a component, a policy or a strategy that can compromise its competitiveness in its industry. In a less competitive time, these costs were tolerable. In industries subject to extreme international competition, compromise means demise. As a result more decisional autonomy is being given to the business units.

The third cost is the cost of inflexibility. A business cannot rapidly change components if those components are used by other business units. A collective or corporate decision must be reached. In industries competing on cycle time and time to market, inflexibility can be an intolerable cost. As time based competition increases more business unit autonomy will be required. All three costs of cooperating are being reduced by more decentralization and differentiation.

The same organizational change results from the trend to own less than 100% of a division. The partnering process is creating joint ventures and minority investments with other companies. Other firms are spinning off divisions, selling equity to division management and acting as venture capitalists. In each case, the partners will object to the costs of compromise and inflexibility. As a

result the relationship between the business and the corporation is one of more decentralization to the business unit and differentiation from the corporation.

As companies move from manufacturing to service businesses a similar organizational change results. Some companies stop manufacturing products, but retain the product service activity as a business unit. Still others spin off the service activity and expand it into a stand alone business. In each case, compensation policies, labor agreements and financial measures for a manufacturing business do not fit the service business. Service oriented policies need to be adopted which make the business unit less common, less consistent and therefore less related with manufacturing business units.

Finally, many vertically integrated companies are breaking up into smaller business units. Oil companies are breaking up into an upstream business of exploration and production, a downstream refining and marketing business and a petrochemicals business. While these units are related by being in the same industry and using the same feedstocks, they are also different. Upstream oil is capital intensive and global. Downstream oil is marketing oriented and a local business. Hence decision making is decentralized to the business units and business policies are differentiated.

The related diversified companies are also growing by acquisition and selling off businesses that no longer fit. Procter and Gamble finds it more efficient to buy brands from Richardson-Vicks and Revlon than create a new one. The acquisition process itself brings in more diversity of policy and practice. Pieces of companies are sold off because they do not fit any longer. In order for its beverage business to receive a good sale price, Procter and Gamble had to allow it to differentiate itself and be effective in its industry rather than common to other Procter divisions. A market for business units is developing so that the business for sale is not always seen as a lemon. The relationship between the corporate office and a recently acquired business or one to be sold is usually more decentralized.

All of these forces are impacting related diversified companies. Their organizations are changing by decentralizing and differentiating businesses. Staffs are being moved out of corporate to group, sector, or business units levels. The staffs that remain are more service oriented and less active. In short the divisionalized organizations are moving to become more like holding companies. Oddly enough the holding companies are moving to become more like the related divisionalized organizations.

From Unrelated to Value Added

The conglomerates have been experiencing strategic forces which are causing them to reduce the number of business areas in which they participate and to add value to those businesses which they retain. The forces are listed below in Table VIII.

Table VIII
Forces Reshaping the Conglomerates

- Performance (actual and perceived)
- Break up Values Greater than Market Value
- Value Added

As suggested earlier the conglomerates have become unpopular with both academia and Wall Street. In some cases actual performance has declined. Usually when the champion of unrelated diversification leaves, the successor experiences a decline in performance such as at ITT and United Technologies. In general successors have had difficulty in managing conglomerates.

Whether performance declines are real or perceived, the sell recommendations from Wall Street push price earnings ratios to the point where the break up value exceeds the market value for the company. At this point the companies either break themselves apart or a take over bid does it for them. In both cases, the number of business areas and hence diversity are reduced. In general, companies are decreasing business diversity and increasing geographic diversity. The corporation must also add value to its businesses. Financial diversification by itself is not a value. Diversity is not valuable to share holders, who can diversify their own portfolio, nor to a business unit which must pay increased overhead. Rockwell must show why Allen-Bradley, purchased in the late 1980s, is more valuable as part of Rockwell than as a stand alone business with a Board of Directors. In order to add value, the corporation must exercise some strategic control in addition to financial control over its business units. The corporation must be more active and employ some people at corporate office or in the businesses who coordinate across businesses to share resources, information and/or people so as to add the value. The stronger corporate office makes the modified holding company more like the divisionalized structure. These corporations are pursuing a mixed strategy where differentiation and decentralization are attributes of a holding company and value added and coordination are attributes of a divisonalized model.

In summary, both of the classical forms of diversified corporations will continue to exist. However the strategic forces listed above are creating some hybrids. The divisionalized firms are decentralizing and differentiating their business units. The conglomerates are reducing diversity,

adding value to their business units and exercising more strategic control over them. The result is a range of corporate forms shown in figure two. The key decisions for the corporate strategy are the diversity of business units that make up the portfolio and the types and amounts of value to be added to those business units. The two decisions are not independent. The more diversity in the portfolio, the more difficult it is to add value other than financial. Similarly, the organization that is to implement the strategy will vary with the types and amounts of value added. The next section describes the value adding organization and the alignment of its various organizational policies.

Organizing the Value-Adding Corporation

The discussion of the value adding corporation will concentrate on the portion of the continuum in figure two that runs from the related to the unrelated strategies. The strategy between the two classical ones is termed "mixed." That is, there are elements of both unrelated and related diversification strategies being followed by these companies. In fact there is continuous variation in the types and amounts of value added. The organization to be chosen will likewise vary with the types and amounts of value added.

The structure which fits these mixed strategies is identified as a cluster in Figure 2. It means that business units are clustered into a Group or a Sector type organization. The clustering brings together businesses that are more related to each other than with the other businesses in the portfolio. Four related issues arise as a result of the formation of clusters of business units.

1. What is the criteria for forming clusters?
2. What is the cluster strategy?
3. What is the size and role of the cluster organization?
4. What activities are left to the corporation?

Clustering Criteria

The criteria for forming clusters requires an elaboration of what is meant by related diversification. Most research studies sort companies into related and unrelated categories based on Standard Industry Classification (SIC) codes. Businesses in the same or similar industries are related and the others are unrelated. Usually some judgement is applied in the categorization (Rumelt, 1973). The use of SIC codes has not been altogether satisfactory. For example Procter and Gamble can be seen to be very diverse because it produces products in the soaps, paper, food, pharmaceutical and toiletries industries and looks to be very diverse. However, every product is a low price, repeat purchase, consumable, sold through mass merchandisers to the homemaker. So

from a marketing and distribution point of view, the products are very related. The 3M Company produces a wide variety of products for a wide variety of markets and therefore appears to be very diverse. However over 90% of the products are developed by chemical engineers using coating and bonding technologies. From the viewpoint of technology, the products are all related. Therefore businesses can be related by products (Hewlett-Packard), by markets (Procter and Gamble) and technology (3M).

As a matter of fact, the ways in which businesses could be related is endless. A group of businesses could be related because they are mature, capital intensive, start-ups, commodity-like, and so on. It is not far fetched to conclude that there are no unrelated businesses. It is not difficult to find some dimension on which a set of businesses are related. The real question is whether an advantage can be achieved by incurring the costs of managing the relatedness.

In summary, there are multiple criteria for grouping businesses into clusters. The difficulty arises because the criteria can conflict. A pharmaceutical company can invent a compound which demonstrates therapeutic value. The company can produce related products whereby one product is sold as a prescription drug and the other as an over-the-counter (OTC) drug. The products are related. The markets are not. But the product-market combinations represent two different businesses. Companies which are good at prescription drugs (Upjohn, Merck) typically are not good at OTC drugs. Prescription pharmaceuticals is an R & D business. OTC drugs are a marketing business. They require different management skills. And it is common management skills that make businesses related.

The question now becomes "Which criterion or combination of criteria will lead to the greatest commonality of management skills?" There is some evidence to suggest that common markets followed by common product industry create the relatedness with the most commonality (Galbraith and Kazanjian, 1986, Chapter 4). Therefore it is hypothesized that companies will place all profit centers serving the consumer market into one cluster. Those profit centers serving commercial end users form another cluster. Profit clusters serving government and defense, producing components for original equipment manufacturers and extracting and refining raw materials will form other clusters. Each cluster consists of a set of profit centers more related to each other than to others in the company's portfolio. Each cluster consists of a set of profit centers that share the business logic in their management.

Companies like Procter and Gamble which serve only one market anchor the left hand (related) side of the continuum in Figure 4. Almost all of P & G's profit centers serve the consumer market. They share common customers, distribution channels, information infrastructure and are united by a common business logic based on brand management. Since the entire company serves one market, profit centers are clustered by product industries such as soap, food, paper and OTC pharmaceuticals. These profit centers share common manufacturing plants,

suppliers, technologies and R & D labs. Profit centers are clustered first by markets and then by products. In this way the greatest number of tangible resources can be shared (Porter, 1986, Chapter 9).

A little farther to the right in figure four is Hewlett-Packard. H-P serves three major markets. The first is industry standard computer products which are sold through distributors. Second is electronic products sold through a direct sales force to commercial customers. Finally profit centers producing components for OEM customers are placed in a semi-conductor cluster. Electronic products are further broken down into clusters serving submarkets for analytical chemistry, medical instruments and electronic measurement instruments. A final submarket is computer systems products utilizing H-P's proprietary architecture which are sold as systems (vs. stand alone products) to end users. A final breakdown of electronic measurement instruments is based on product differences. The result is seven clusters of profit centers. The market diversity yields little sharing of marketing and distribution resources beyond a common H-P brand.

There is considerable sharing of manufacturing and product development resources. All products consist of circuit designs and software placed on semiconductor chips and printed circuit boards which are contained in plastic boxes. Resources and know how can be shared for printed circuit board fabrication and assembly, semiconductor technology and suppliers, CAD/CAM infrastructure, R & D labs and design resources. H-P shows some market diversity and product relatedness.

The Nippon Electric Corporation (NEC) follows a strategy of yet more market diversity while managing product and technology relatedness. Like H-P, they produce semiconductor components for OEM's and act as an OEM themselves while producing computers, telecommunications and other industrial electronics products for commercial markets. Unlike H-P, NEC produces products for the consumer electronics market. Also like H-P they manage the relatedness of manufacturing, purchasing, technologies, R & D, and product development across their profit centers (Prahalad and Hamel 1990). The structure of NEC also is based on clusters of profit centers around markets. One cluster each has been created for the consumer market and OEM components. The industrial market is further divided by submarkets and products for computers, telecommunications and other industrial electronics products.

AT&T is still more diverse. Like NEC it manufactures semiconductor components, telecommunications equipment, computers and consumer electronics. In addition it is a telephone company to whom NEC sells products. It also has financial services profit centers. The telephone and financial services form their own clusters.

The last diversified corporation that is shown in figure three and is not a classical conglomerate is General Electric (GE). GE is the most diverse company discussed to this point. Its profit centers span raw material markets (petroleum) to consumer products (major appliances).

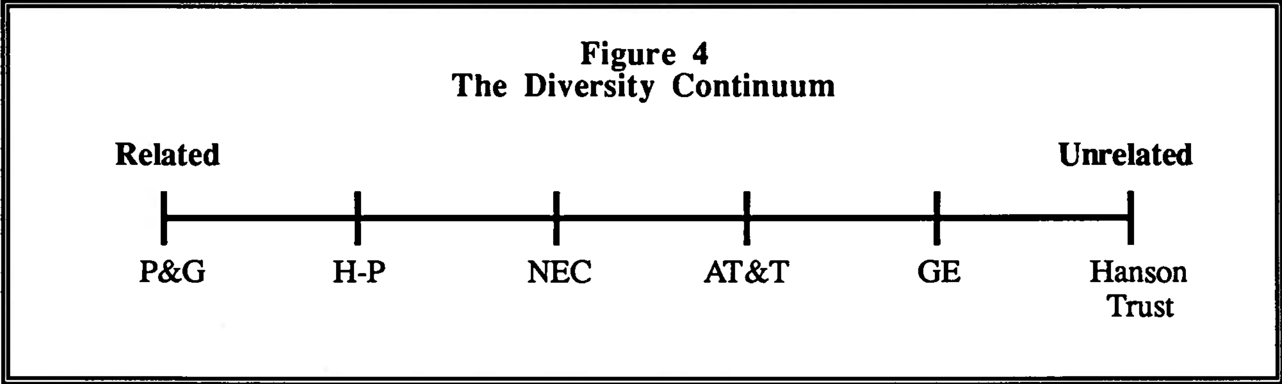
Its profit centers span about 20 of the 26 double digit SIC codes. Some of the profit centers are clustered into market categories such as defense, consumer and medical. Others are clustered by product industries such as chemicals, lighting, jet engines, power products, factory automation, communications, financial services and information services.

GE and AT&T are companies that fall into the mixed strategy category. They span multiple products and markets. Their businesses are manufacturing and services. Yet they are not holding companies because they attempt to add value to their business units. They are clearly an intermediate form.

Finally Hanson Trust is the anchor of the right hand side of the scale in Figure 4. It buys and sells companies in any industry in which it finds undervalued assets or underperforming managements. It attempts to add no value other than financial skills and resources. It is a classic conglomerate.

In summary, clustering by market and then product, appears to combine profit centers so that they have maximum likelihood to share resources and know how. Most importantly they are most likely to share management skills. The result should be greater relatedness between profit centers within a cluster than between clusters.

Figure 4
The Diversity Continuum



Cluster Strategy and Organization

The clusters themselves vary in strategy and organization. They are actually corporations within a corporation. The clusters can vary across the entire continuum shown in Figure 2.

The General Electric Company can serve as an example. Its clusters are called Strategic Business Units (SBU's). They have been reduced from 43 in 1980 to about 13 today. Some SBU's are single business, functional organizations like Jet Engine and Major Appliances. At least one is a front/back organization. Medical Systems presents a common front to its customers while producing X-ray equipment, CAT Scanners and Magnetic Resonance products in its back ends. Aerospace and Defense has about 12 profit centers collected into a related divisionalized model. The profit centers share manufacturing, procurement, information systems and a Washington

Office as well as the normal financial and human resource functions. GE Capital is a collection of financial service businesses which create a mini-neo-conglomerate. At Westinghouse, whatever businesses that do not fit into their clusters are themselves grouped into miniature holding company. The businesses such as 7-up Bottling, Longine-Whitenauer Watches, and Thermo-King (manufacturer of refrigerated trucks and railway cars) form a cluster. So the clusters can run the gamut from being a single business functional organization to a mini holding company of several unrelated businesses. The size and role of the cluster organization matches its corporate organization equivalent. The organization of the cluster will also match its corporate equivalent. These are described in the next sections.

Corporate Value Added

The previous sections described the placement of businesses requiring cross divisional coordination into clusters. The concept was to maximize the relatedness within a cluster and decentralize coordination from corporate to the cluster level. The question remaining is "What is left for the corporation to do?" Table IX below lists the typical sources of value added supplied by the Corporation.

Table IX
Sources of Potential Value Added

1. Capital Resources
2. Management Talent
3. Technology
4. Leverage (buying, selling, partnering)
5. Government Relations
6. Brand
7. Banking
8. Proprietary Expertise
9. Others

At a minimum, the corporation provides access to capital resources. The borrowing capacity is greater and the borrowing costs lower for the corporation than for its individual business units. Hanson's acquisition of Beazer will greatly reduce Beazer's interest expense when their debt is refinanced at Hanson's cost of borrowing. Holding companies such as Hanson Trust

do not try to add any additional value to their business units other than financing and financial expertise.

The neo-conglomerate attempts to add at least two more sources of value. Westinghouse and Daimler-Benz centrally manage their key technologies and top management talent. Daimler has identified micro-electronics, advanced materials and robotics as central to all their businesses. Strategic investments and projects in these areas are centrally managed. It is as if Daimler has formed its own research consortium among its diverse businesses to create proprietary technology.

Westinghouse centrally manages the development, assignment and compensation of its top 250 managers. It is its own executive recruiter and knows in detail the background, profile and performance of its management talent. The business units have access to a talent pool that would be unavailable to them as separate businesses.

These sources of value can be used in combination to great effect. Rockwell's Graphic business (manufacturer of printing equipment for newspapers) was experiencing a strategic shift from electromechanical to digital electronic technology and from chemical imaging to color electronic imaging. As the manager of the business approached his upcoming retirement, he and the corporation agreed upon a succession plan. A manager from the Automotive Group became the number two at Graphics for two years. The new manager was familiar with large projects and digital systems. He, in turn, brought in a chief engineer from the Space Shuttle program. The new engineer led the conversion to digital printing technology. The project was supported by several research projects conducted jointly with the corporate R & D labs and the Electonics Group. The new processes have been well received by the market and achieved a world-wide market share of 50%. The Graphics business profited from being part of the Rockwell organization by having access to management talent and digital technology.

General Electric is an example of a corporation that also tries to leverage its size when buying and selling. The central negotiation of contracts to get buying volume and leverage is well known. The more related the businesses the greater the number of items on which buying volume can lead to lower costs. GE also tries to cross sell across its business units. When General Motors announced its Saturn project, GE approached them with a package deal. GE could provide lighting for the plant and cars, plastics for construction and the car, the usual electrical equipment for the plant, co-generating power equipment, a service agreement to run the co-generation plant, factory automation equipment, project financing, and telecommunications equipment. General Motors could negotiate one contract and receive one bill. GE would coordinate the rest. Some companies like this one stop shopping.

Another corporation is coordinating its partnering activities. The effort began when it became aware of a possible alliance between one of its businesses and Northern Telecom. It became aware because a second business unit was promoting the relationship. The reason was that

Northern Telecom was a good customer and a partner in two alliances with the second business unit. Corporate management then asked "How many deals does the company have with Northern?" A search revealed 13 arrangements at various stages of development with a number of business units. Suddenly the transaction revealed a relationship between the companies. Then the next question became "Why have a relationship with Northern? Why not AT&T or Ericson from Sweden?" At this point, the company wanted to get "out front" and choose its partners and relationships. Intelligence on partners and partnering skills are being centrally coordinated.

All these sources of leverage can be used together. As companies become suppliers, customers, partners and competitors with each other, the corporation can add value to its business through leveraging its contacts, providing intelligence and creating new opportunities. It is common now for CEO's of corporations to discuss ways to improve the "balance of trade" between their companies. The central coordination of buying, selling and partnering can create new opportunities for the business units which would be unavailable to them on their own. Similarly, a business unit may have to be a loss leader on a transaction. It may lose business because it is part of a larger and out of favor corporation. There is a chance for negative value as well as positive value added.

The positive and negative aspects of value added also apply to the next two sources. Some companies are effective at establishing relationships with governments. Business units in the corporation can achieve an advantage if they wish to enter a country in which the corporation is viewed with favor. A well known brand franchise can give a business an advantage if it shares the brand such as Sony, GE or Kodak. If the corporation is not viewed favorably in a country or a brand gets a bad reputation, a business unit will get tarred with same brush. A centrally coordinated approach to brands and government relations can add positive or negative value.

Corporations can also add value through their credit subsidiaries. Some companies have built virtual banks out of their former credit subsidiaries. In a period of tight capital, GE Capital and IBM Credit can provide loans to customers, suppliers and partners of the business units. The credit availability adds value to business units.

Finally, the corporation can make available its proprietary expertise to the businesses. For related business units sharing best practice across business units in many functional areas is central to the role of the corporate functional staff. Sharing know how can still be accomplished in less related businesses. Usually more general expertise is involved like Total Quality skills, Just-in-Time skill, and so on.

The list is endless. New forms of value are always being added. As environmental issues arise, many corporations are creating their own Green Department. Many are creating their own universities. Some sources of value are temporary. Others are sustainable. But the search for

value to be added to businesses has replaced control as the primary purpose of the corporate headquarters.

In summary, many sources of value are being sought by corporations. If the businesses are not too diverse multiple sources of value can be found. If the businesses are very diverse little beyond finance can be shared. The amount of value added will determine the size and role of the corporate unit and its equivalent at the cluster level. High value adding corporations will be more centralized, have larger staffs, use less variable compensation and transfer people across businesses. Figure 5 summarizes the strategy and organization continuum. As a corporation adds less value or shifts value adding activities to clusters of similar businesses, the staff organization gets smaller, compensation for clusters gets more variable and measurable and employee careers are more within the clusters. The range of strategies is increased. However, the alignment between strategy and organization is still required for effective performance.

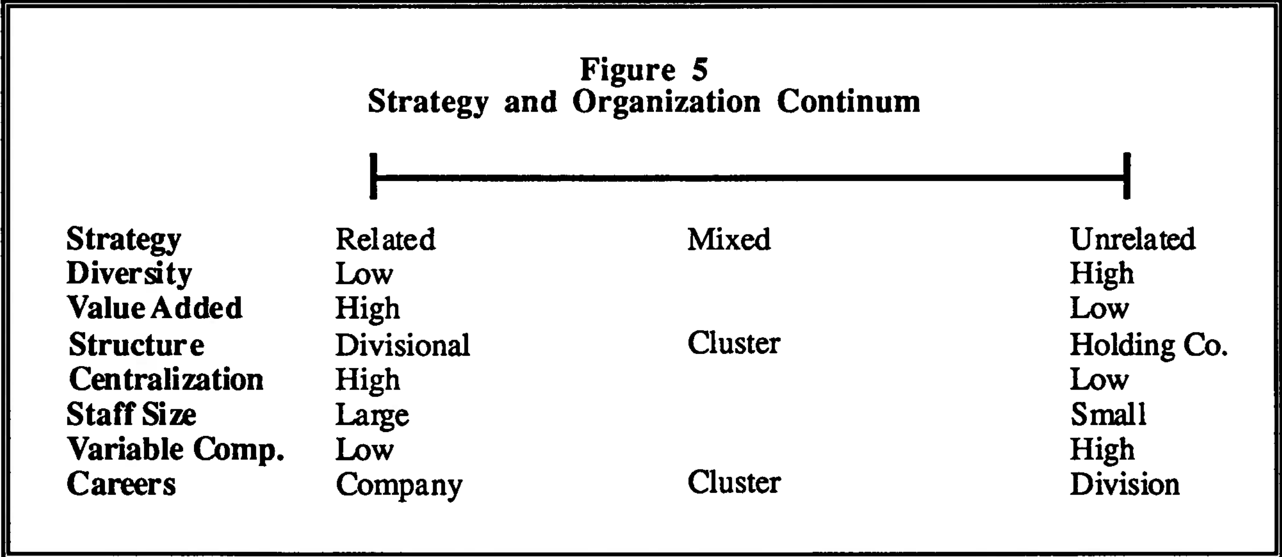


Figure 5
Strategy and Organization Continum

Strategy	Related	Mixed	Unrelated
Diversity	Low		High
Value Added	High		Low
Structure	Divisional	Cluster	Holding Co.
Centralization	High		Low
Staff Size	Large		Small
Variable Comp.	Low		High
Careers	Company	Cluster	Division

Conclusion

This chapter has presented a framework for aligning corporate strategy and organization. Corporate strategy consists of two components. The first is the amount of diversity in the portfolio of businesses that the corporation operates. Diversity is measured by the number of business areas in which the business units compete (often measured by SIC categories). Some judgment is also applied to increase diversity if different markets are served or if the businesses vary from manufacturing to services. The second component is the types and amounts of value that the corporation adds to its businesses. To some degree these components compliment one another.

More diversity means less chance for value added. However, there is some choice of value added for any level of diversity. General Electric has a similar but somewhat more diverse set of businesses than does Westinghouse. Yet GE tries to add more value to its business units.

In order to add value to businesses, the corporation needs an organization designed to accomplish the potential. Figure five shows the framework for choosing organizational policies which align with the value adding strategy. If the strategy can be placed in a relative position along the continuum, the organization polices can be estimated.

The recent business trends have been pushing companies away from the pure functional divisional, and holding company models. These models are still being implemented but a range of other models are also being used. These other models were shown in Figure two. Each type is appropriate for a level of diversification that the firm is pursuing.

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