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ORGANIZING TO SUPPORT INTERNAL DIVERSIFICATION

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ORGANIZING TO SUPPORT INTERNAL DIVERSIFICATION¹

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ABSTRACT

The Strategy and Structure literature has concentrated on researching relationships between attained strategies and the organization structures and processes needed to support those strategies successfully. Little emphasis has been given to the process by which the strategy is achieved or the role of structure in supporting that process. Our model of Internal Diversification proposes that the Strategic Context set by the decision to diversify determines the structures and processes needed to achieve the desired diversification. Strategic Context determines the type and degree of knowledge to be developed during diversification, which in turn determines appropriate structural designs and integrating mechanisms. An organizational learning perspective guides the development of the model.

Since Chandler's historical review of the development of U.S. industry (1962), theorists in the disciplines of strategic management (Rumelt, 1974; Montgomery, 1979, 1982), organization theory, (Galbraith and Nathanson, 1979; Miles and Snow, 1978), and economics (Williamson, 1975), have postulated relationships between strategy and organization structure. The dominant theme of this literature has been to examine patterns of relationships between attained strategies (Minzberg, 1979) and the structures and processes needed to support those strategies. While recognizing the economic importance of choosing the right strategy to match the environmental context (Hofer and Schendel, 1978; Thompson and Strickland, 1980; Hambrick, 1983), performance is primarily hypothesized to be a function of the degree of fit between a series of strategic and structural components (Van de Ven and Drazin, forthcoming). An extensive amount of research has been conducted using this general contingency approach and we believe that this constitutes what Schoonhoven (1981) and others have called a meta-theoretical framework. These frameworks consist of domain assumptions which govern choices in the areas of problem definition, measurement, sampling and testing (Gouldner, 1970).

We argue that despite the significant achievements that this literature has made its assumptions are too restrictive and have discouraged research into questions that appropriately should be conceived of as strategy-structure in nature. One intriguing question would focus on understanding the process of achieving an as yet unattained strategy. Here strategy would be conceived of as an intended goal (Chandler, 1962) or as a vision of an only partially specified future (Normann, 1977; Quinn, 1980) rather than as an achieved state of affairs. Structures would then function as intermediate devices used to support the transition between the current state and a future more diversified posture (Harrigan, 1983).

This paper develops the foundations of a model linking strategies for internal diversification to the structures and process needed to achieve those strategies. Diversification strategies are shown to differ in the degree to which organizational learning is needed to implement the strategy. Testable propositions are presented

which link the amount of knowledge to be generated to the capacities of different structural alternatives to create knowledge. Possible future research directions and planned extensions of the model to encompass human resource and reward system variables are discussed

DIVERSIFICATION AS AN ORGANIZATIONAL LEARNING PROCESS

Diversification may be conceptualized as a process which unfolds over time and which, like other organizational processes, consists of a sequence of explicit or implicit decisions (Janis and Mann, 1977; Tornatzky, et al, 1983). At one level the process is undoubtedly highly complex, involving groups and actors whose behavior is intermingled in a loosely connected set of decisions (Cohen, March and Olsen, 1972; Burgelman, 1983). Often the pattern that unfolds can only be understood retrospectively, by making inferences from reviews of past behavior (Minzberg, 1979; Kazanjian and Drazin, 1984).

Alternatively the process may be conceived of as a set of more or less discrete stages through which the organization advances over time. Here, each stage implies a series of interrelated behaviors which are logically essential for subsequent stages to proceed. The utility and validity of any given punctuation of a complex process resides with the purpose and intent of the research (Tornatzky, et al, 1983). We focus here on a four stage model which encompasses key problematic activities that have been noted in the innovation and corporate venturing literature (Fast, 1978; Hlavacek and Thompson, 1977; Tushman and Moore, 1982). These four stages include: Strategic Context Setting, Search and Idea Generation, Review and Funding, and, Commercialization (see Figure 1). Future more detailed analyses of the process may require correspondingly more refined punctuations.

Insert Figure 1 about here

STRATEGIC CONTEXT SETTING

Following Normann (1977), we believe that purposeful growth and diversification is guided by some managerial vision of a future new business idea or domain. The vision, initially, is only partially specified but is nonetheless sufficient to

guide further action. It is this vision and its attendant implications for refinement and elaboration that drives the subsequent stages of the process and that determines the structures needed to support these tasks.

Our concept of strategic context and the guiding role it plays is based on our view of organizations as learning systems. While this metaphor has been frequently employed (Argyris and Schon, 1978; Schon, 1971; Jelinek, 1982), its critical role in this model requires further elaboration. As Schon (1971: 62) points out the classical business firm has been organized around a single product. This product plays a unique role in that it defines the relationship between the firm and its market (Normann, 1971). Attributes of the product, including its technological and user functions, its quality and price, and its mode of distribution are embodiments of the firm's business idea - the cognitive map or theory of competing held by the dominant coalition (Normann, 1977; Argyris and Schon, 1978). This business idea reflects knowledge developed by the organization in the process of competing and adapting. This knowledge is mapped on to the organization in the form of key functions, actors and interdependencies. The organization at any point in time, then, can be considered as consisting of an existing knowledge base (Heydebrand and Noell, 1973).

The decision to diversify implies that the firm jointly positions itself to expand or maintain its current domain, while simultaneously exploiting potential new domains (Thompson and Strickland, 1980). While the firm may hold superior knowledge of distinctive competence in some form that suggests advantages for diversification, it nonetheless must develop additional competencies necessary to compete in the new domain. Internal diversifiers develop their own knowledge, while acquisitive diversifiers purchase this knowledge (Pitts, 1977).

Ultimately, the new knowledge to be developed can be seen to occur in at least three primary functional areas (Pitts and Hopkins, 1982; Abell, 1980). The organization must solve marketing, technological and production problems in the development of any viable new venture (Kazanjian, 1983). Any specific internal diversification can be

categorized in terms of the requirements for knowledge development along each of these three dimensions (see Figure 2). The more unrelated the targeted domain the more knowledge that must be developed. Note that the degree of unrelatedness is perceptual in nature, and can only be understood relative to the organization's existing knowledge base.

Insert Figure 2 about here

Strategic context can be more explicitly defined as the degree and type of unrelatedness implied by the targeted new business domain, where unrelatedness is the relative distance between the knowledge available in the current domain and the knowledge needed to implement the new domain. Unlike the categorical schemes of unrelatedness discussed by Pitts and Hopkins (1982), Montgomery (1979) and others, relatedness here is perceptual in nature and refers to the vision implied in some desired future state. Strategic context does not refer to any specific well defined products but rather only to boundaries in which these products eventually will be developed. The nature and extent of knowledge development is determined by the strategic context established by management and knowledge development consists of elaborating and refining the domain originally targeted by management (Kazanjian and Drazin, 1984).

SEARCH AND IDEA GENERATION

The requirements for knowledge development established in the strategic context setting stage become the task focus of subsequent search and idea generation activities. The organization must identify and then develop new business candidates to present to management for review (Normann, 1971). These candidates must fall within and satisfy the guidelines established by the strategic context. A process of iterative refinement may occur when these proposals are presented. As new ideas are developed in greater specificity and move toward defined statuses (Tornatzky, et al, 1983) their clarity may aid management in defining what the targeted domains should be. As Fast (1978) describes, the diversification effort may then evolve into greater or lesser realms of relatedness.

Search and idea generation must be considered as somewhat problematic activities, especially when conducted within the confines of existing structures (V. Thompson, 1967; March and Simon, 1958). Bureaucratic environments and the pressures of maintaining the current domain may drive creative ideas out of the system (Fast, 1978).

REVIEW AND DECISION MAKING

Once ideas have been generated and defined adequately enough to be understood they must undergo a selection process to determine which ideas will receive additional scarce funding. Top management must ultimately back only one or a few projects over others.

As a number of authors have suggested (Galbraith, 1982; Kazanjian, 1983) there exists a pattern to the development of a product or business. Focusing on the product itself, these phases might include the proof of a technological principle, the development and testing of prototypes, the execution of trial production runs, and the development of market and concept tests (Tauber, 1977). All of these tests would be executed by functional areas, who then periodically feed results back to management (Hannan, 1969). Early on these reviews may be brief and informal and involve the expenditures of relatively small amounts of money. As development and idea generation proceed, greater formalism and regularity of deliberation typically emerges.

A fundamental problem associated with this phase is that the creative component of the organization, which has generated the original idea, must now interface with with the current domain and its potential conservatism. As reported by Hlavacek and Thompson (1977), this interface was the most often cited organizational reason for venture failure in their study. The problem the organization must overcome is the premature termination or bridling of potentially good business candidates (Myers and Sweezy, 1978; Noyce, 1978).

COMMERCIALIZATION

Business candidates that have passed the funding and review stages will eventually be realized through a process of commercialization. While undoubtedly the processes of implementation (Beyer, 1983) and institutionalization are complex (Gross, et al, 1971), our primary focus in this paper is on the prior stages of knowledge development and

decision making. For now we will consider a decision to market a new product or service as the end of the sequence of events of concern and that commercialization is mostly a project management task.

SUPPORTING THE DIVERSIFICATION PROCESS

Organizational processes, especially those associated with innovation, change, and strategy formulation are impacted by the structural and political context in which they occur (Benson, 1977; Fredrickson, 1983; Normann, 1971). Support for the diversification process occurs primarily through the provision of an appropriate organizational context that will allow for both the development of new business ideas and for their subsequent integration into the system.

We will argue, as shown in Figure 3, that the Search and Idea Generation phase of the diversification process can best be supported by structurally separating those individuals and units responsible for knowledge development apart from the activities of the current domain. We further argue that once separated, coordination and integration mechanisms must be established to facilitate appropriate funding and review decisions. The degree and form of differentiation and coordination is dependent on the level of knowledge development implied by the Strategic Context.

Insert Figure 3 about here

STRUCTURAL DIFFERENTIATION

The prescriptive literature in the innovation area has persisted in developing a bi-polar perspective on production oriented versus innovative types of organizing (Galbraith, 1982; Burns and Stalker, 1961), without addressing the inconsistent demands that result from the simultaneous pursuit of two strategies. While exceptions have appeared in the literature on managing technological innovation (Fusfeld, 1978; Tushman and Moore, 1982; Burgelman, 1983), the majority of thinking in this area has

addressed the design of single business enterprises only and not the diversifying firm.

Recently, certain arguments have emerged that advocate structural differentiation as an organizational strategy for innovation and diversification. Ansoff and Brandenburg (1971), Van de Ven and Delbecq (1974) and Harrigan (1983) have all recommended that strategic development be located apart from strategic expansion (current market innovation). The reasoning behind this is that maintaining the current business involves the incremental modification of existing products to promote segmentation and penetration, while diversification involves the conceptualization of entirely new products, markets, technologies or production methods. The task in the former is more certain and involves narrow search, limited to known consumption groups, with reasonably defined methods for understanding how expansion should occur (Tauber, 1977). In the latter case of diversification, a broader search is required, normally external to known consumer groups with a great deal more uncertainty associated with how to gather and process information. Because known, definable activities usually take precedence over unknown, difficult activities (Fast, 1978; March and Simon, 1958) then the co-location of modification and diversification activities will result in the latter not being attended to, or done so inadequately.

We argue that, relative to the current business group, increasing levels of structural differentiation provide for greater capacity to generate non-routine knowledge (Duncan, 1976). The type of knowledge generating structure adopted should reflect the differences in capacity demanded by the targeted domain and its implied degree of unrelatedness. Organizations that do not sufficiently differentiate structurally are likely to develop insufficient numbers of new business proposals, or proposals that do not adequately meet the demands for unrelatedness. Organizations that over-differentiate and go beyond the level of unrelatedness contained in the diversification strategy, are likely to develop proposals that are seen as too radical, and which have a high probability of never being accepted (Argyris and Schon, 1978; Fast, 1978).

The structural choices available, and their relationship to the level of knowledge development required, are shown in Figure 4. Two separate hierarchies of choices are contained in this exhibit. The first represents a series of within-function structural differentiation options that correspond to low and moderate levels of unrelatedness (lower portion of exhibit). These within-function choices apply to marketing, technology and production areas, and should be considered as building blocks for an inter-functional team. This inter-functional team is the first level in a more encompassing hierarchy of choices. Beyond task teams the next options consist of separate organizational units containing their own complements of knowledge generating functions. These options are appropriate for higher levels of unrelatedness.

Insert Figure 4 about here

TASK TEAMS AND FUNCTIONAL BUILDING BLOCKS

There are two factors which govern the choices available for task team structures. The first factor applies to the choice of the task team structure itself, versus the more differentiated alternatives available, while the second factor governs the choice of functional building blocks that make up the team.

Under conditions of low to moderate unrelatedness the strategic direction chosen by management implies making use of knowledge already existing in the system. This knowledge, or distinctive competence, may reside in one or more functional areas. The task facing the organization is to combine its existing knowledge with the new knowledge that it develops in such a way that a new business emerges. If a separate hierarchy is created to deal with diversification, the organization could potentially lose its ability to capitalize on its existing knowledge base. A separate structure interfacing with existing functional areas can face several problems, including poor communication, lack of cooperation and inter-group conflict (Hlavacek and Thompson, 1977). Task team structures allow for high levels of internal communication (Galbraith, 1977) and yet still provide for modest levels of separation from the current system.

Once a task team structure has been decided upon the remaining issues deal with the functional composition of the team. We assume here that all functional areas are represented by one or more members and the choices to be focused on deal with functional level differentiation, or where the team members come from. It will be recalled that our concept of unrelatedness is at the functional level and that knowledge development proceeds in at least three key areas: technology, marketing and manufacturing. The Strategic Context set by the decision to diversify may include any mix of functional level unrelatedness. If the organization is attempting to make use of an existing, proven technology, by extending it to new product or market areas, it is unlikely that significant new knowledge will have to be developed in the technology area. Most of the learning efforts will occur in marketing and perhaps in production, with the organization focusing on competitive issues, and the development of a superior product. Other combinations of functional level knowledge development are also possible (Fusfeld, 1978). Therefore, knowledge development and structural differentiation must, at the most basic level, be thought of as occurring within the functions, and then combined at the task team, or business level, to yield a viable diversification candidate.

The task team option, then, consists of several functional level building blocks, each related to the level of knowledge development required of the functional area. Each functional area must then choose a level of structural differentiation matched to these task requirements. There are four options available, each of which imparts greater levels of differentiation from the current function.

The first option available is WITHIN-JOB DIFFERENTIATION. Incumbents with current domain responsibilities, have their jobs consciously set up to allow them, on a part time or release time basis to work on diversification development. For example, in technological functions, the use of free time for engineers and scientists to explore company approved new business areas has been reported (V. Thompson, 1969). It seems reasonable to assume that similar arrangements can and do exist in marketing and in process development (Jelinek, 1979).

An extension of this concept would be JOB-DIFFERENTIATION where whole jobs are created, within a single functional unit, to separate current and new domain

innovation activities. Again, in the technological area there is an extensive literature dealing with the creative scientist or engineer and their position in a network of roles for creating new ideas (Galbraith, 1982; Roberts, 1978). These roles could also be adopted in other functional areas.

Further separation can be provided through the use of within function PROJECT TEAMS. Several individuals are drawn from a single function to concentrate efforts on a developmental activity (Sayles and Chandler, 1969 ; Galbraith, 1977; Nystrom, 1979). After project completion the team members return to other projects or to current domain activities. This structural option implies two levels of team membership, one within-function, and one at a higher level, between-functions. The final option, representing the highest level of structural differentiation for a functional area is the DEVELOPMENT GROUP STRUCTURE. A permanent group is established as a separate unit, reporting within the functional area hierarchy, with the responsibility for diversification development. In technological areas this might be an advanced technology function, for marketing, a research group, and for production, a process engineering section. Higher levels of knowledge development may be pursued through such a group (Van de Ven and Delbecq, 1974; March and Simon, 1958).

This range of options allows the functional area to choose structures consistent with the demands for knowledge development placed upon them. As one moves from the lower to higher levels, gains are made by being freed from the constraints of current area norms and practices. What is lost, however is proximity to existing organizational knowledge. These two factors, taken together, determine the ultimate level of structural differentiation the function should adopt. These relationships are summed up in the following two propositions:

PROPOSITION ONE:

If the degree of knowledge to be developed is low to moderate, then the appropriate degree of structural differentiation at the organizational level is the Task Team.

PROPOSITION TWO:

For effective idea generation, the level of structural differentiation within-function should match the degree of knowledge that function is required to generate.

THE NEED FOR A SEPARATE HIERARCHY

When the diversification direction established by management implies moving into fields that are moderately to extensively unrelated the task requirements facing the organization change, relative to the above discussion. At this point capitalizing extensively on existing corporate knowledge is not a significant part of the strategy. The firm is now attempting to enter fields that bear little or no resemblance to the current domain. From a learning perspective, it is necessary to develop virtually all the knowledge needed to compete in the new domain. The form of structural differentiation adopted should reflect this situation. The problem facing the firm now is to avoid restrictive influences that may be present in the current system and to create an environment suitable for generating unrelated business proposals (Fast, 1978).

Two structural devices have been suggested in the literature and both share in common the use of a hierarchy that is separate from that of the current organization. The function of a separate hierarchy is to buffer the creative component of the organization from non-diversification related pressures through the establishment of a managerial role responsible solely for diversification activities. The importance of a powerful orchestrator or sponsor role has been documented by Hlavacek and Thompson (1977), Roberts (1978) and Galbraith (1982). Separate funding and budgeting mechanisms can be used to reinforce this division (Jelinek, 1979; Galbraith, 1982).

The first of these two mechanisms is the INDEPENDENT BUSINESS UNIT (IBU) and the second is the NEW VENTURE DEPARTMENT (NVD). The IBU is a permanent, interdisciplinary unit designed to explore moderate to high levels of unrelated diversifications. Usually a unit of this type is located within the corporate structure, to symbolically indicate that the level of unrelatedness of proposals generated by this group should not be exceptionally far afield of the main business. IBM has reported using this type of structure successfully to launch the personal computer. This

type of structure has been described as an intra-corporate new venture department by Hanann (1969), and as a mini-venture group by Fast (1978). Both authors differentiate the IBU from the New Venture Department the mission of the IBU is relatively more circumscribed than that of the NVD. The NVD structure differs from the IBU form in that it exists external to the corporate hierarchy, signifying its relatively greater distance from the current corporate mission. The NVD is appropriately used for diversification strategies that require unrelated ideas to be generated. The NVD has been suggested by Hannan (1969), Ansoff and Brandenburg (1969), Fast (1978), and Argyris and Schon (1978). Figure 5 schematically shows the IBU in relationship to the NVD structure.

PROPOSITION THREE:

If the degree of knowledge to be developed is moderate to high then the appropriate organizational structure to adopt is one with a separate hierarchy.

PROPOSITION FOUR:

For effective idea generation the level of structural differentiation adopted should match the degree of knowledge to be generated. For moderate unrelatedness the appropriate form is the Independent Business Unit. For high unrelatedness the appropriate form is the New Venture Department.

Insert Figure 5 about here

COORDINATION AND INTEGRATION

While the generation of ideas is a necessary condition for successful internal diversification it is by no means sufficient. The organization must still review the progress of the structurally differentiated group and choose among the candidates proposed for further funding and testing. According to Myers and Swezey (1978), a potentially serious problem at this stage is the premature rejection of good diversification candidates, rather than the approval of poor candidates. Several studies have reported significant difficulties faced by companies at this stage. Hlavacek and Thompson (1977), for example, cite integration issues as a major cause of new

venture failures in the 21 venture groups they studied. The premature application of rationalized bureaucratic principles of review and control resulted in power conflicts between new venture managers and senior and product division executives. A consistent finding was that all the new venture managers felt stifled by excessive corporate control. The result for the diversification effort was either termination or severe restriction.

Similarly, Fast (1978) reports in his study of new venture evolution that the paradox created by the existence of the NVD results in a state of disequilibrium in the organization. This in turn creates power conflicts, non acceptance of ideas generated by the NVD and often results in the NVD being scaled down and redefined, or eliminated altogether.

Hannan (1969) has suggested that the selection and review process is as important, or more important, than idea generation for achieving successful new business development. Normann (1977), Roberts (1978) and Booze, Allen, Hamilton (1982), all maintain that the review phase should be as consciously designed, staffed and managed as all other phases of the process. Developing subsystems for creativity is not enough; appropriate mechanisms must be developed to link these idea generation systems into the dominant organization. The integrating mechanisms that are chosen should be suitably matched to the level of knowledge development required and to the level of structural differentiation developed (Duncan, 1976).

INTEGRATING MECHANISMS FOR RELATED DIVERSIFICATIONS

Under conditions of related diversification, the major coordination problems are likely to be the smooth transfer of information between functional areas and the priority management and sharing of scarce knowledge resources between the old and new domains. Related diversification implies the development of new business ideas through the unique combination of new and existing knowledge. Differentiation is likely to be confined to Task Team structures and associated levels of within-function differentiation.

Consequently the candidates or proposals generated by these subsystems are likely to be seen as relatively incremental shifts in strategy. Problems of cultural differences between the differentiated subgroups and their parent functional areas would be small, and the power threats reported by Fast (1978) and Normann (1977) would be less likely to materialize. Proposals generated by these groups are likely to be perceived as less risky, more certain and predictable, and capable of being handled within an existing power structure.

Following Roberts (1978), Galbraith (1982), and others, the forms of integration developed need not be excessively sophisticated. The creation of project manager, sponsor and orchestrator roles should be sufficient to ensure a proper balance between old and new domains. This is not to diminish the problems of integration that might exist but only to indicate that current project management principles and techniques should be adequate.

INTEGRATING MECHANISMS FOR UNRELATED DIVERSIFICATIONS

Under conditions of high unrelatedness, integration issues between the current organization and the differentiated subunit are likely to shift away from the coordination of scarce resources and towards the issues of legitimacy, rights of review, control and power. Here the differentiated subunits are self-contained and the sharing of resources, in the form of parent firm expertise should be minimal (Galbraith, 1977), although surely funding is shared. However in these cases the implications of implementing an unrelated diversification are likely to be profound for the current power structure (Normann, 1971, 1977; Argyris and Schon, 1978). Proposals generated by these groups are likely to be perceived as radical and highly uncertain (Zaltman, Duncan and Holbek, 1973). The criteria applied by the subunit and the parent firm for evaluating new business candidates will also be different (Hlavacek and Thompson, 1977) and the norms of the two areas will probably clash (Fast, 1978). Under these conditions the primary issues will be to maintain the legitimacy of the differentiated unit and its proposals and to prevent severe imbalances in power that could result in dysfunctional decision making at review and selection time. Integrating devices

developed to aid in these endeavors must go beyond traditional project management structures if they are to be successful.

Hlavacek and Thompson (1977) have recommended several mechanisms to facilitate the linking of the idea generation subsystems to the current organization at the review and funding stage. First, they recommend the development and dissemination of a formal charter for the differentiated subunit to legitimize its role in the diversification effort. Such a charter would be accompanied by the necessary symbolic support of top management (Quinn, 1980). Additionally, they recommend the establishment of a review committee whose ideology is positioned midway between that of the IBU or NVD and the traditional values of the parent firm. Added to the review board would be outsiders to provide for balance in the review process and to avoid premature bureaucratization. Normann (1977) has similarly suggested that successful review groups have this balance of perspectives. He explicitly develops the concept of a constellation of roles including "idea generation", a "sturdy pillar" representing the current business idea and a "moderator" who strikes a balance between the two opposing viewpoints (p 134).

Additional devices have been discussed, although our empirical assessment of their ability to bridge new and current domains is not known. Separate financial planning and budgeting mechanisms for ongoing and diversification efforts seems to eliminate a source of conflict by providing legitimized sources of funds to both areas. Jelinek (1979) and the popular press have described at length the separation of innovative activities from productive activities at Texas Instruments and Galbraith (1982) has reported success with this multiple banker concept at 3M as well. Cultures that support the concept of growth and diversification may also assist in overcoming political resistance. Pascale and Athos (1980) and Deal and Kennedy (1982) have both documented the positive effects of culture on cooperation. Similarly, Jelinek (1979) acknowledges the importance of TI's culture to its innovative success. Still other devices may be available to facilitate integration for high levels of internal diversification and our limited knowledge in this area may be due to the limited corporate experimentation currently underway.

These mechanisms go beyond the limited confines of project management in providing additional capabilities in bridging old and new domains. We believe that the level of the mechanisms adopted must match the degree of unrelatedness and the degree of structural differentiation if effective and quality review decisions are to be made.

PROPOSITION FIVE:

If the degree of differentiation of the idea generating system is low, then Project Management forms of coordination will be sufficient. If the degree of differentiation is high, the organization must develop additional, more sophisticated integration mechanisms to increase legitimacy and to reduce power conflicts.

CONCLUSIONS AND RESEARCH IMPLICATIONS

We have described a particular way of viewing strategy implementation that focuses on process issues and on organizational learning. The central thesis of our model is that stages of the internal diversification process need to be supported by structures and processes if the strategy is to successfully be achieved. We have incorporated into this viewpoint a contingency perspective, stating that the form of the design adopted, considered in terms of structural differentiation and coordinating mechanisms, is contingent upon the level and type of knowledge the organization must develop. The unrelatedness of the strategic direction established by management is the ultimate determinant of this task. Several implications can be drawn from these issues for researchers wishing to further investigate diversification processes.

First there are methodological issues. Unrelatedness, a concept of central importance in this model, is essentially cognitive in nature and does not refer an attained level of diversification but rather to a vision of a future state (Kazanjian and Drazin, 1984). The methods we currently use to measure unrelatedness (Montgomery, 1979; Rumelt, 1974) simply do not apply and other approaches must be developed. Here, techniques such as Multi-Dimensional Scaling might be fruitfully employed to assess "distances" between current and future domains (Schiffman, Reynolds and Young, 1981). Other issues having to do with unrelatedness and its impact on structure concern the relative importance of knowledge development in each functional area. For example, it seems likely that

shifts in product/market domains may have much greater ramifications on structure than equivalent shifts in technological or production areas. We need to investigate the elasticities associated with these more refined concepts of unrelatedness.

Theoretically our model can be extended to incorporate additional design factors. We need to address the role of staffing, reward systems and other human resource issues and learn how they affect implementation of strategies. Galbraith (1982) and Roberts (1978) both provide extensive descriptions of the variety of roles needed to effectively innovate, but provide no tie back to different diversification strategies. Similarly, differences in reward systems may be needed to support different levels of knowledge development and coordination (Galbraith, 1977). Ultimately, we see developing a multiple factor contingency framework of diversification structured in the fashion of popular congruence design models (Nadler and Tushman, 1978; Peters and Waterman, 1982).

Finally, we believe that other areas in the strategy-structure field can benefit from a process perspective as well and that internal diversification represents only one possible research stream. Other forms of growth and non-growth strategies including; acquisitions, mergers and joint ventures (and combinations of these), and divestiture are topic areas that could be approached this way (Harrigan, 1983). Building our knowledge in these fields will yield very practical usable results for managers who need to know how to implement the directions they have chosen.

FIGURE 1:
STAGES OF THE INTERNAL
DIVERSIFICATION PROCESS

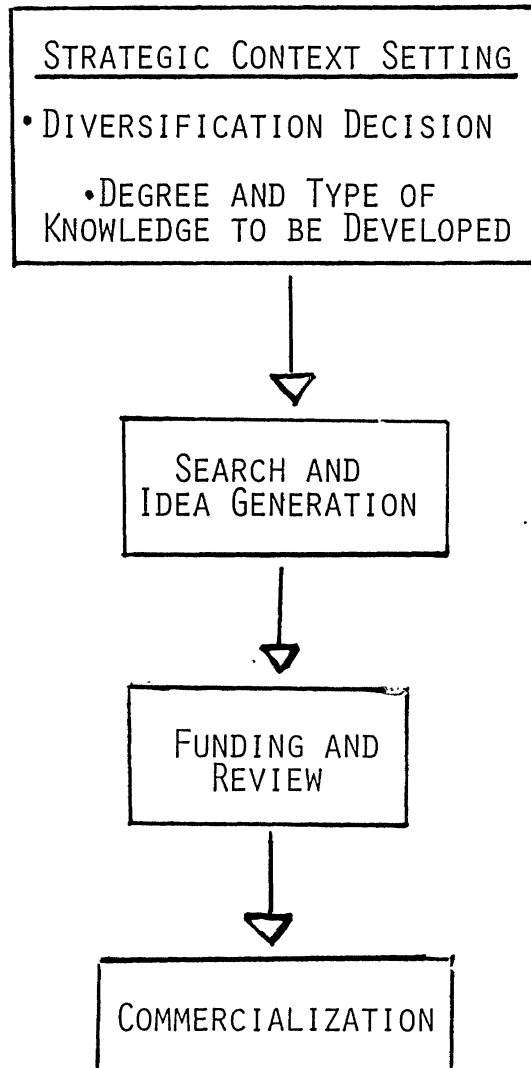
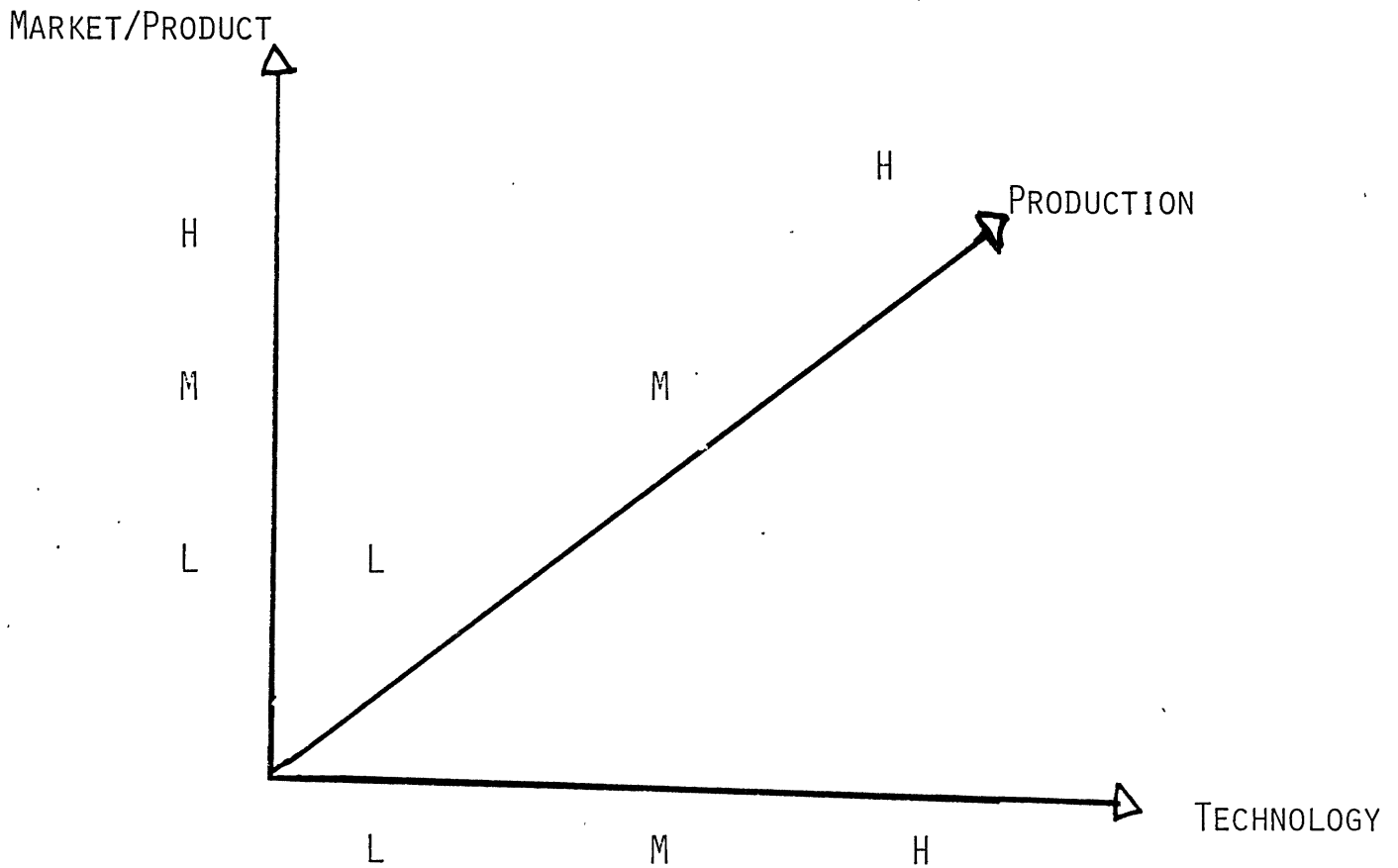
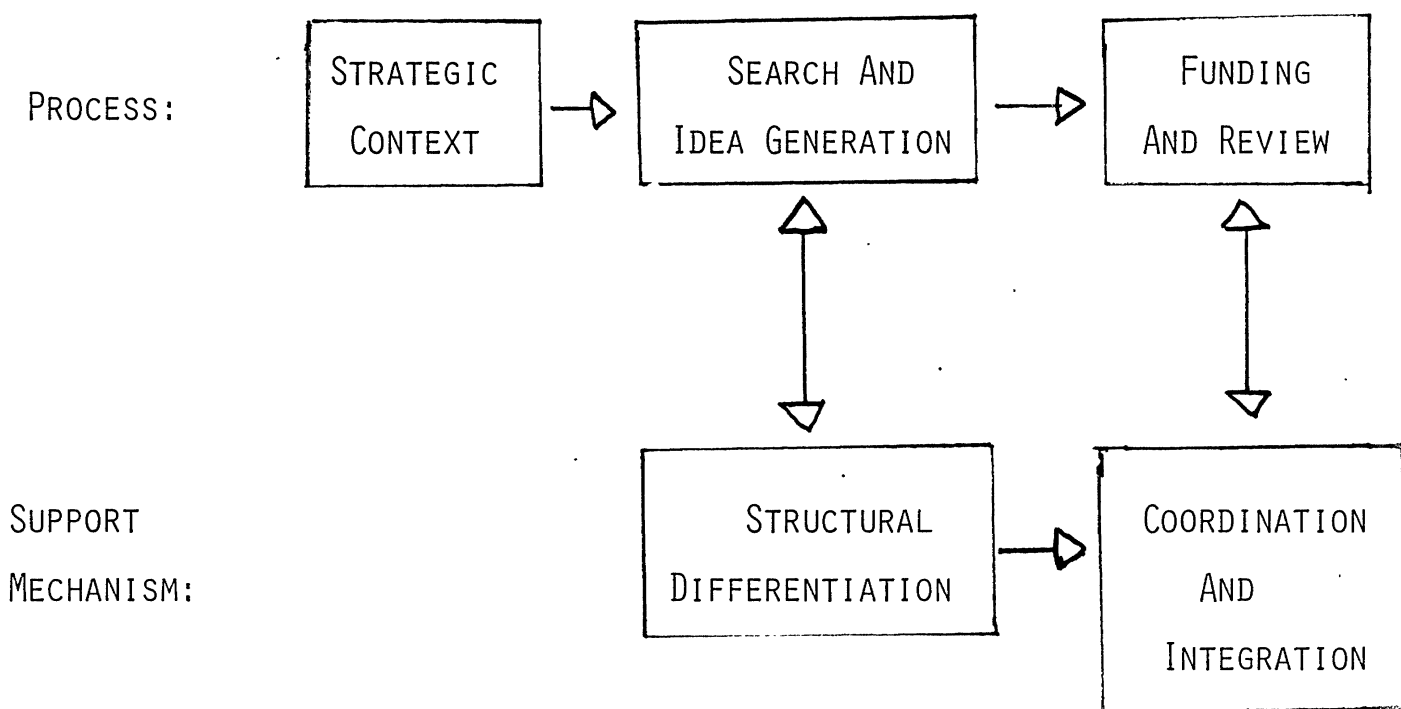


FIGURE 2:
FUNCTIONAL LEVEL UNRELATEDNESS



(EXTENT OF KNOWLEDGE TO BE DEVELOPED)

FIGURE 3:
ORGANIZATIONAL SUPPORT
FOR INTERNAL DIVERSIFICATION



EXTENT OF KNOWLEDGE DEVELOPMENT NEEDED

HIGH
 MODERATE
 LOW

FIGURE 4:

HIERARCHY OF STRUCTURAL DIFFERENTIATION OPTIONS

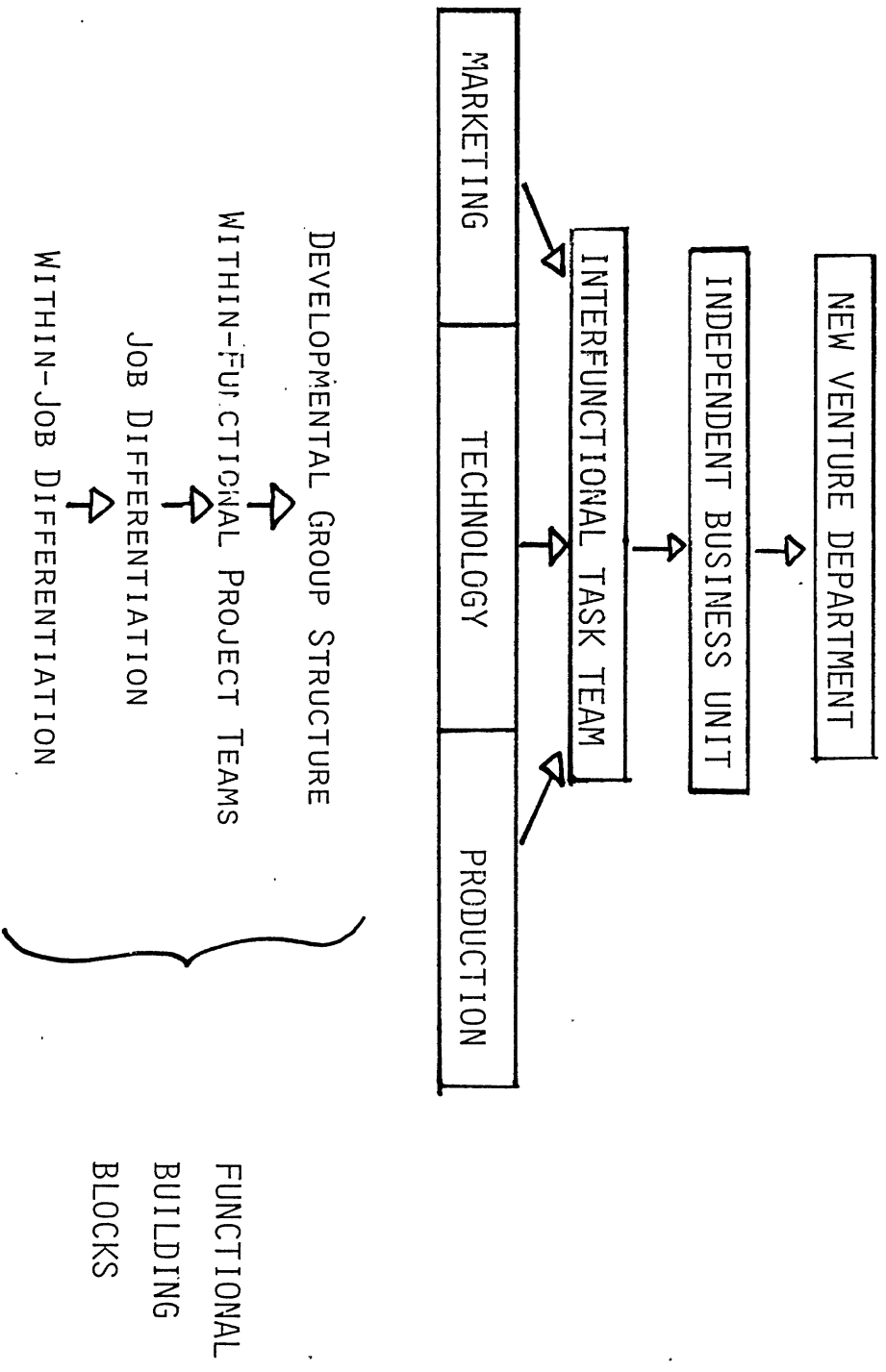
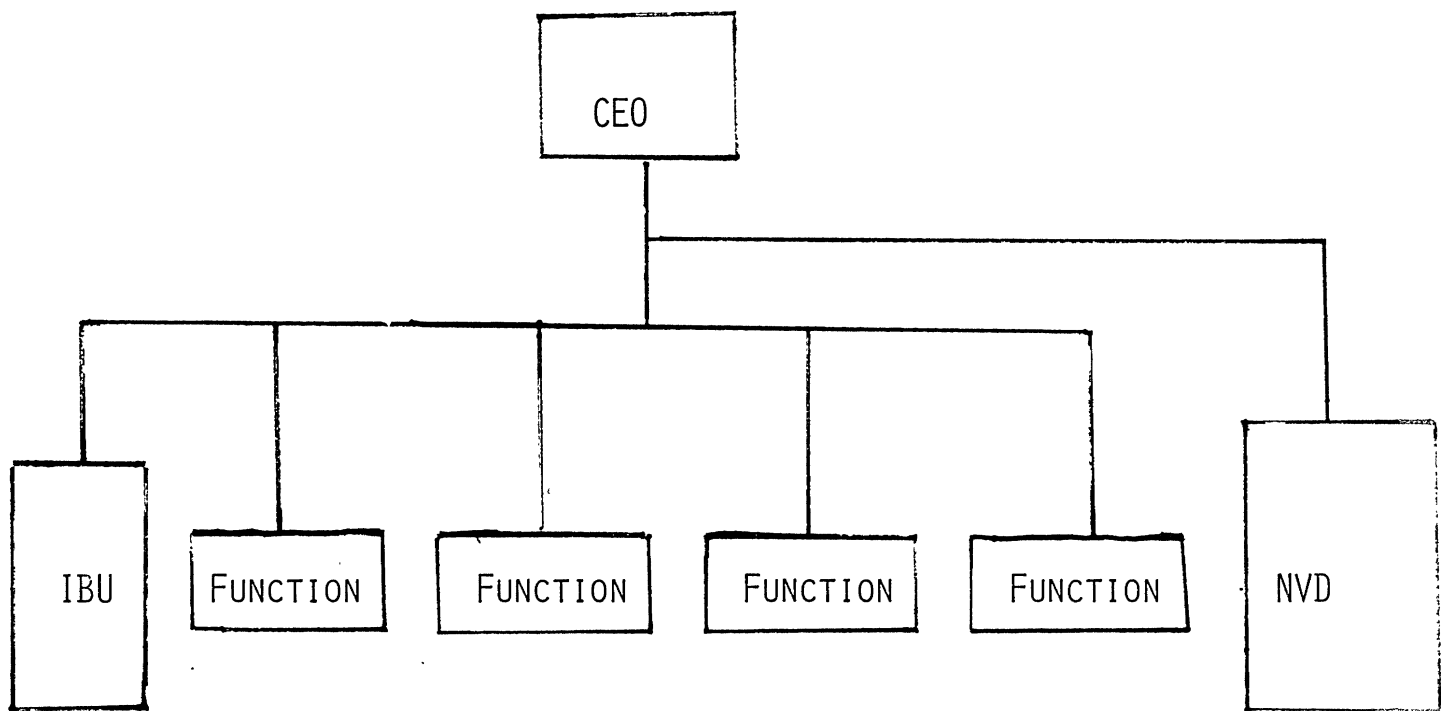


FIGURE 5:
COMPARISON OF IBU AND
NVD STRUCTURAL OPTIONS



INDEPENDENT BUSINESS UNIT (IBU)

NEW VENTURE DEPARTMENT (NVD)

REFERENCES

- Abell, D.F. Defining the business: the starting point of strategic planning. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1980.
- Ansoff, H.I. and Brondeburg, R.G. A language for organization design, parts I and II. Management Science, 1971, vol. 17, 705-731.
- Argyris, C. and Schon D.A. Organizational learning. Reading, Mass.: Addison-Wesley 1978.
- Benson, J.K. Organizations: a dialectical view. Administrative Science Quarterly, 1977, vol. 22, 1-21.
- Berg, N. Corporate role in diversified companies. Business Policy: Teaching and Research, 1973.
- Beyer, J.M. The utilization of organization research. Administrative Science Quarterly, 1982, vol. 27, 588-590.
- Booz-Allen & Hamilton, Inc. New products management for the 1980's. New York: Booz-Allen & Hamilton, Inc., 1982.
- Burgelman, R.A. A process model of internal corporate venturing in the diversified major firm. Administrative Science Quarterly, 1983, vol. 28, 223-244.
- Burns, T. and Stalker, G.M. The management of innovation. London: Tavistock, 1961.
- Chandler, A.D., Jr. Strategy and structure. Cambridge, Mass.: The M.I.T. Press, 1962.
- Cohen, M.D., March, J.G. and Olsen, J.P. A garbage-can model of organizational choice. Administrative Science Quarterly, 1972, vol. 17, 1-25.
- Deal, T.E. and Kennedy, A.A. Corporate cultures: the rites and rituals of corporate life. Reading, Mass.: Addison-Wesley, 1982.
- Duncan, R.B. The ambidextrous organization: designing dual structures for innovation. In R.H. Kilmon, L.R. Pondy and D.P. Slevin (eds.), Volume I: the management of organization design. New York: North Holland, 1976.
- Fast, N.F. The rise and fall of corporate new venture divisions. Ann-Arbor, Mich.: UMI Research Press, 1978.
- Fredrickson, J.W. Strategic process research: questions and recommendations. Academy of Management Review, 1983, vol. 8, 565-575.
- Fusfeld, A.R. How to put technology into corporate planning. Technology Review. 1978, 53-57.
- Galbraith, J.R. Designing the innovating organization. Organizational Dynamics, 1982, vol. 10, 5-25.

- Galbraith, J.R. Designing the innovating organization. Organizational Dynamics, 1982, vol. 10, 5-25.
- Galbraith, J.R. Organization design. Reading, Mass.: Addison-Wesley, 1977.
- Galbraith, J.R. and Nathanson, D.A. Strategy implementation: the role of structure and process. St. Paul, Minn.: West Publishing Company, 1978.
- Gouldner, A. The coming crisis in western sociology. New York: Basic Books, 1970.
- Gross, N., Giacuinta, J.B. and Bernstein, M. Implementing organizational innovations. New York: Basic Books, 1971.
- Hannan, M. Corporate growth through venture management. Harvard Business Review, 1969, January.
- Hambrick, D.C. An empirical typology of mature industrial product environments. Academy of Management Journal, 1983, vol. 26, no. 2, 213-230.
- Harrigan, K.R. Preparing the firm for transformational strategies. Advances in Strategic Management, 1983, vol. 1, 133-142.
- Heydebrand, W.V. and Noell, J. Autonomy, complexity and non-bureaucratic coordination in professional organizations. In W.V. Heydebrand (Ed.), Comparative organizations: the results of empirical research. Englewood Cliffs, N.J.: Prentice-Hall, Inc. 1973.
- Hlavacek, J. and Thompson V. Bureaucracy and new venture failure. Academy of Management Review, 1977.
- Hofer, C.W. and Schendel, D. Strategy formulation: analytical concepts. St. Paul, Minn.: West, 1978.
- Janis, I. and Mann, L. Decision making. New York: Free Press, 1977.
- Jelinek, M. Institutionalizing innovation: a study of organizational learning systems. New York: Praeger Publishers, 1979.
- Jelinek, M. The need for organizational learning. In Jelinek, M., Litterer, J.A. and Miles, R.E. (Eds.), Organizations by design: theory and practice. Plano, Texas: Business Publications, 1982.
- Kazanjian, R.K. The organizational evolution of high technology new ventures: the impact of stage of growth on the nature of structure and planning processes. Unpublished Doctoral Dissertation, The Wharton School, University of Pennsylvania, 1983.
- Kazanjian, R.K. and Drazin, R. Implementing internal diversifications: selling the strategic context. Working paper, University of Michigan.
- March, J.G. and Simon, H.A. Organizations. New York: John Wiley and Sons, 1958.
- Miles, R.E. and Snow, C.C. Organizational strategy structure, and process. New York: McGraw-Hill, 1978.

- Mintzberg, C. The structuring of organizations. Englewood Cliffs, N.J.: Prentice-Hall, 1979.
- Montgomery, C. Diversification, market structure and firm performance: an extension of Rumelt's model. Ph.D. Dissertation, Purdue University, 1979.
- Montgomery, C.A. The measurement of firm diversification: some new empirical evidence. Academy of Management Journal, 1982, vol. 25, 299-307.
- Myers, S. and Sweezy, E.E. Why innovations fail. Technology Review, 42-47.
- Nadler, D.A. and M.L. Tushman. Information processing as an integrating concept in organizational design. Academy of Management Review, 1978, vol. 3, 613-624.
- Normann, R. Management for growth. New York: Wiley, 1971.
- Normann, R. Organizational innovativeness: product variation and reorientation. Administrative Science Quarterly, June, 1971,
- Noyce, R.N. Innovation: the fruit of success. Technology Review, 1978, 53-57.
- Nystrom, H. Creativity and innovation. New York: Wiley, 1979.
- Pascale, R.T. and Athos, A.G. The art of Japanese management: applications for American executives. New York: Simon and Schuster, 1981.
- Pitts, R.A. Diversification strategies and organizational policies of large diversified firms. Journal of Economics and Business, 1976, 181-188.
- Pitts, R.A. Strategies and structures for diversification. Academy of Management Journal, 1977, vol. 22, 197-208.
- Pitts, R.A. and Hopkins, H.D. Firm diversity: conceptualization and measurement. Academy of Management Journal, 1982, vol. 7, 620-629.
- Quinn, J.G. Strategies for change: logical incrementalism. Richard D. Irwin, Inc., 1980.
- Roberts, E.B. Generating effective corporate innovation. Technology review, 1978, 2-10.
- Rumelt, R.P. Strategy, structure and economic performance. Cambridge, Mass.: Harvard University Press, 1974.
- Sayles, L. and Chandler M. Managing large systems. New York: Harper and Row, 1971.
- Schiffman, N., Reynolds, M. and Young, F. Introduction to multi-dimensional scaling. New York: Academic Press, 1981.
- Schon, D.A. Beyond the stable state. New York: W.W. Norton, 1971.
- Schoonhoven, C.B. Problems with contingency theory: testing assumptions hidden within the language of contingency theory. Administrative Science Quarterly, 1981, vol. 26, 349-377.

- Tauber, E.M. Forecasting sales prior to test market. Journal of Marketing, 1977, January, 80-84.
- Thompson, A.A. and Strickland, A.J. Strategy formulation and implementation. Dallas, Texas: Business Publications, Inc., 1980.
- Thompson, V.A. Bureaucracy and innovation. University, Alabama: University of Alabama Press, 1967.
- Tornatzky, L., Eveland, J.D., Boylan, M.G., Hetzner, W.A., Johnson, E.C., Roitman, D. and Schneider, J. The process of technological innovation: reviewing the literature. Washington, D.C.: National Science Foundation, 1983.
- Tushman, M.L. and Moore, W.L. Readings in the management of innovation. Marshfield, Mass.: Pitman Publishing, 1982.
- Van de Ven, A.H. and Delbecq, A.L. A task contingent model of work-unit structure. Administrative Science Quarterly, 1974, vol. 19, 183-197.
- Van de Ven, A.H. and Drazin, R. The concept of fit in contingency theory. In L. Cummings and B. Staw (Eds.), Research in Organizational Behavior, Greenwich, Conn.: JAI Press, vol. 7, forthcoming.
- Williamson, O.E. Markets and hierarchies: analysis and antitrust implicatons. New York: The Free Press, 1975.
- Zaltman, G., Duncan, R. and Holbek, J. Organizations and innovations. New York: John Wiley, 1973.

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