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RESEARCH ON CORPORATE DIVERSIFICATION: A SYNTHESIS

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Diversification has emerged as a central topic of research in strategic management. Although this topic has been widely and intensively studied by scholars from other areas such as industrial organization economics, financial economics, organization theory, and marketing, a synthesis of these diverse streams of research is lacking. This paper attempts such a synthesis with a view to fostering further strategic management research in this area by taking a multi-disciplinary perspective on diversification. A wide-ranging search of the literature led to the development of an overarching research framework that facilitates the classification of a vast body of literature. Proceeding from the framework, a critique of the literature is performed with a particular emphasis on studies by strategic management researchers. Five key conceptual and methodological problems are identified and discussed. Suggestions are offered for future research on diversification.

INTRODUCTION

Studies of diversification have long been a mainstay of strategic management (SM) research. They constitute one of the unique cores of the growing literature in this relatively young discipline. Along with such concepts as synergy (Ansoff, 1965; Carter, 1977; Chatterjee, 1986), distinctive competence (Hitt, Ireland and Palia, 1982; Selznick, 1957; Snow and Hrebiniak, 1980), and generic strategies (Dess and Davis, 1984; Porter, 1980), the notions of diversification and diversity occupy a central place in the language and literature of the SM field. In addition to an extensive body of literature on diversification as a topic in its own right, diversity occurs prominently as a key variable in numerous studies focused on other aspects of SM as well (e.g. Allen, 1979 (reorganizations); Bane and Neubauer, 1981 (foreign ventures); Donaldson and Lorsch, 1983 (top management decision-making); Lorsch and Allen, 1973 (managing diversity and interdependence); Springate and Miller, 1978 (managerial determinants of organizational performance)).

As a topic of research, diversification has a rich tradition. Writing from a managerial perspective, Ansoff first discussed diversification strategies some 5 years prior to the appearance of Chandler's (1962) or Gort's (1962) seminal works on diversification (Ansoff, 1957, 1958). The topic has been examined by business historians (Chandler, 1962; Didrichsen, 1972), economists (e.g. Berry, 1975; Gort, 1962; Markham, 1973; Mueller, 1977), and researchers in the areas of finance (e.g. Reid, 1968; Weston and Mansinghka, 1971), law (e.g. Davidson, 1981, 1985, 1986) and marketing (e.g. Levitt, 1975; Capon, Hulbert, Farley and Martin, 1988). In its role as enforcer of antitrust laws the U.S. Federal Trade Commission has sponsored a number of studies of diversification from a public policy perspective (Federal Trade Commission, 1980; Stewart, Harris and Carleton, 1984).

Today, the literature on diversification not only represents a great variety of perspectives and disciplinary paradigms, but also covers a wide range of research questions and issues. Despite the breadth of its scope, no comprehensive review of this literature is available. This

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paper attempts to classify and integrate the substantial volume of empirical work—and some of the more important conceptual works as well—on this topic. Our aim is to bring together relevant literature from the SM field as well as other related disciplines wherein diversification has been a major topic of investigation. It is hoped that such a review will serve both as a record of the intellectual ground that has already been traversed and as an exercise in evaluating the state of our current knowledge of this area. The exercise was also motivated by the desire to identify specific gaps in that knowledge and to pinpoint promising areas for future research.

A cautionary note regarding the nature and scope of the ensuing review is in order. Given the long history of research in this area, any claim of comprehensiveness on our part would be clearly foolhardy. While we have attempted to be as comprehensive as possible as far as the SM field is concerned, our coverage of the literatures of other areas has been intendedly more modest. Also, in terms of temporal span, we treat the 1962–63 period as a watershed for the purpose of this review. The pathbreaking work of Gort (1962) from the industrial organization economics perspective and Chandler (1962) from the business policy perspective represent convenient take-off points for a chronological analysis of developments in the different disciplines.

This paper is organized as follows. In the next section we bring together a number of definitions of diversification and adopt a broad conceptualization for the purposes of this review. We then develop a classificatory framework for categorizing research on corporate diversification. Next, we delineate and describe two broad categories of diversification research based on the framework. A general critique of research on corporate diversification follows. We then go on to select one popular stream of research within the strategic management field, wherein five key conceptual and methodological problems are discussed. Directions for future research are suggested next, specifically identifying three key 'needs'. Finally, a summary section concludes the paper.

DEFINITIONS OF DIVERSIFICATION

A review of the literature reveals that there is a great deal of variation in the way diversification is conceptualized, defined, and measured. Gort (1962) defined diversification in terms of the concept of 'heterogeneity of output' based on the number of markets served by that output. In his view two products are said to serve separate markets if their cross-elasticities of demand are low and if, in the short run, the necessary resources employed in the production and distribution of one cannot be shifted to the other. Note that in this early definition the concepts of synergy and resource sharing have been more or less defined away. To Berry (1975) diversification represents an increase in the number of industries in which firms are active. Kamien and Schwartz (1975) defined diversification as the extent to which firms classified in one industry produce goods classified in another. In all these early definitions, industry or market boundaries are assumed to be given. In contrast, Pitts and Hopkins (1982) use the word 'business' rather than 'industry', defining diversification as the extent to which firms operate in different businesses simultaneously. 'Business' definitions, in contrast to definitions of 'industry', assume the perspective of the firm as opposed to an external analyst and allow for greater subjectivity in the measurement of diversification. Ansoff's (1957, 1965) notion of diversification emphasizes the entry of firms into new markets with new products, i.e. his emphasis is on the diversification act rather than the state of diversity which characterizes the definitions mentioned earlier.

Still more recent attempts at defining diversification have focused on the multidimensional nature of the diversification phenomenon. For example, a Booz, Allen and Hamilton study defined diversification as a means of spreading the base of a business to achieve improved growth and/or reduce overall risk that (a) includes all investments except those aimed directly supporting the competitiveness of existing businesses; (b) may take the form of investments that address new products, services, customer segments, or geographic markets; and (c) may be accomplished by different methods including internal development, acquisitions, joint ventures, licensing agreements, etc. (Booz, Allen and Hamilton, 1985). This definition attempts to capture the goals of diversification, its direction, and the means by which it is accomplished. It also has a decision focus insofar as it stresses the different types of investment decisions that qualify as diversification moves. Broad as it is, it does not go far enough in that it fails to include the administrative linkages and process aspects of diversification.

For the purpose of this paper, *diversification* is defined as the entry of a firm or business unit into new lines of activity, either by processes of internal business development or acquisition, which entail changes in its administrative structure, systems, and other management processes. From this perspective, simple product line extensions that are not accompanied by changes in administrative linkage mechanisms do not fall under the conceptualization of diversification adopted by us. Further, following Pitts and Hopkins (1982), we use the term *diversity* to describe the extent to which firms are simultaneously active in many distinct businesses.

The motivation behind defining diversification in terms of both 'what it is' and 'what it does' is consistent with the objective of developing an overarching research framework to classify extant research. It should be realized, however, that narrower definitions are both necessary and unavoidable when conducting empirical research.

A FRAMEWORK FOR CLASSIFYING RESEARCH ON CORPORATE DIVERSIFICATION

The schematic framework of Figure 1 is proposed as a convenient means of classifying the literature on diversification. It was arrived at after a process of trial and error in selecting appropriate concepts that might help perform the integration of the diverse body of literature that was assembled. Basically, Figure 1 consists of 11 boxes that represent central themes or concepts in the literature of diversification. Boxes 1 through 3 and 11 represent 'generic' strategic management concepts—namely, the general environment, the industry environment, firm characteristics (an omnibus term which includes a wide assortment of firm characteristics), and corporate performance.[1] We will not offer an extended discussion of these concepts in this paper. In contrast, boxes 4 through 10 in the middle level of the framework include themes specific to the topic of diversification. The rationale for focusing on each of these themes is discussed next.

Firms' decisions to diversify (box 4)

For understanding research on diversification, the logically obvious place to start is the antecedents and influences on firms' decisions to diversify. It has been suggested that a number of influences may be at work that induce a firm to diversify (Carleton, Harris and Stewart, 1980; Federal Trade Commission, 1980; McDougall and Round, 1984; Reed and Luffman, 1986; Salter and Weinhold, 1979). Box 4, therefore, collectively subsumes a host of motives for diversification.

Firms diversify for both proactive and defensive reasons (Reed and Luffman, 1986). Of these, four have received particular emphasis in the literature. These are the four generic strategic management concepts mentioned earlier (boxes 1 through 3 and 11). For instance, Miles's (1982) study of the tobacco industry demonstrates how firms' diversification decisions were shaped by the general environment (i.e. the legal–political–economic–technological–social–ecological milieu in which the firm operates), the industry's competitive environment (i.e. the structural features of the tobacco industry), specific characteristics of the firms themselves, and their performance. In our framework these four influences are broken out of box 4 because they are not only major influences on firm's decisions to diversify, but also affect many other aspects of diversification. Hence, we felt it would not be proper to combine them with the other, arguably less dominant, reasons for diversification subsumed in box 4. Their centrality in the research on corporate diversification will be apparent as we discuss our framework further.

Choice of direction of diversification (box 5)

Once the decision to diversify has been taken, the next issue firms face is that of the *direction* in which to diversify. A firm choosing to diversify can be viewed as basically seeking ways to modify its business definition so as to better satisfy some set of performance objectives. According to Abell (1980), a business can be defined in terms of the customer functions it seeks to satisfy, the customer groups it targets, and the technologies it uses in satisfying the customer functions sought by the

[1] We are indebted to one of the referees for explicitly emphasizing the distinction between *ex-ante* and *ex-post* performance, and for suggesting the linkages between these two distinct notions of performance and other concepts in our framework.

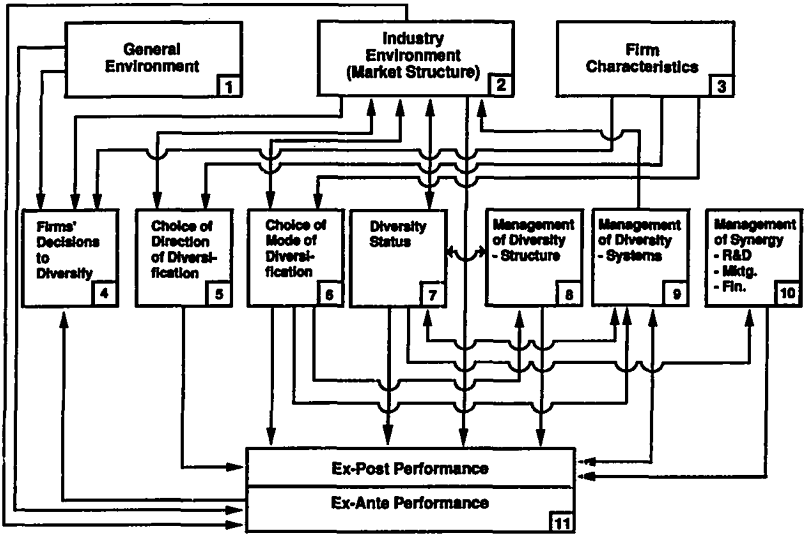


Figure 1. Research on diversification: themes and linkages

targeted customer groups. The new lines of activity into which a firm chooses to diversify may therefore involve modifications along one or more of these key dimensions of business definition.

Typically, firms do not attempt to modify all three dimensions of business definition simultaneously, but concentrate on that dimension which represents their greatest strength or offer the greatest opportunity. Studies investigating the patterns of inter-industry diversification in the U.S. (Carleton, Harris and Stewart, 1980; Stewart, Harris and Carleton, 1984; MacDonald, 1985), U.K. (Gorecki, 1975), and Canada (Lemelin, 1982) find that, by and large, firms tend to diversify into industries that are similar to their primary industry in terms of advertising intensity, R&D intensity, and/or buyer/seller relationships. Hence, most diversification moves can be understood as a thrust primarily along one of the dimensions in Abell's (1980) framework for conceptualizing a business. Indeed, in a study of diversification by European companies, Booz, Allen and Hamilton (1985) adopt a similar approach and use the following dimensions to describe the thrust or direction of diversification: technologies, products and services, geographic markets, customer segments, and distribution channels.

Diversification aimed at realizing technological and marketing synergies can be incorporated easily within Abell's (1980) or Booz, Allen and Hamilton's (1985) frameworks. Such diversification is commonly described as related diversification. Sometimes, however, diversification is undertaken as a way to obtain vertical economies (i.e. reducing costs by integrating backward or forward) or economies in the securing and allocation of financial resources (i.e. the exploitation of capital market imperfections). Such diversification usually represents entry into unrelated businesses. The notion of direction of diversification in our framework therefore captures the basis and extent of relatedness between the new and old lines of activity.

Choice of mode of diversification (box 6)

The next major theme in the literature is the choice of diversification *mode*. By this we mean the extent to which the firm relies on internal business development vis-à-vis acquisitions as a means of entering new lines of activity. Here the polar extremes are 'internal growth' versus 'acquisition-based growth' (Berg and Pitts, 1979; Pitts, 1980; Salter and Weinhold, 1978, 1979, 1981; Yip, 1982). A mixing of the modes is also possible (Lamont and Anderson, 1985). The rising cost of internal development coupled with the shortening of product life cycles has rendered acquisition-based diversification increasingly attractive to firms. A number of studies, therefore, focus on acquisitions and mergers as a strategy of growth (Bradley and Korn, 1982; Davidson, 1981, 1985, 1986, 1987; Kusewitt, 1985; Scherer, 1980).

In addition to the scholarly works on mergers and acquisitions, evaluations of the impact of merger activity in general (Burck, 1982; *Business Week*, 1984, 1985a) as well as the performance of specific mergers (Fisher, 1984; Louis, 1982) appear with increasing frequency in the business press. Executives who built large conglomerates using strategies of acquisition-based growth have also recently contributed their insights on the rationale and effectiveness of unrelated diversification via acquisition (Geneen, 1984; Little, 1984). Other modes of entry into new lines of activity such as licensing, joint ventures and strategic alliances, and providing venture capital support to ostensibly independent entities, fall somewhere between the pure polar extremes and have been discussed in a number of studies (e.g. Roberts and Berry, 1985).

Diversity status (box 7)

After a firm has engaged in diversification over time and has pursued several diversification projects, by whichever mode it chooses to grow, it attains a certain diversity status or profile. In Rumelt's (1974) scheme it becomes vertically integrated, related–diversified, or unrelated–diversified (ignoring, for the moment, the finer categories proposed by Rumelt). Box 7 is intended to capture the extensive stream of cross-sectional research that has explored the performance differences associated with different diversity profiles (Bettis, 1981; Bettis and Hall, 1981a,b, 1982; Bettis and Mahajan, 1985; Bettis, Hall and Prahalad, 1978; Chandrasekaran, 1982; Christensen and Montgomery, 1981; Montgomery, 1979; Palepu, 1985; Rumelt, 1974, 1982; Varadarajan, 1986; Varadarajan and Ramanujam, 1987). A number of conceptual and empirical studies, however, focus exclusively on the measurement of diversity; that is, there is significant interest in the concept of diversity in and of itself. We will discuss the measurement of diversity in greater detail in a later section.

Management of diversity (boxes 8, 9, and 10)

The problems of managing diversity increase dramatically as the firm's scope of diversification increases. Boxes 8, 9, and 10 are included to represent the growing volume of work on the implementational and management aspects of diversification. A number of studies examine the impact of diversity on such organizational aspects as *structure* (Chandler, 1962; Rumelt, 1974; Wrigley, 1970) and *internal processes and systems* (Bettis and Hall, 1981b; Haspeslagh, 1982; Leontiades and Tezel, 1981; Pitts, 1976, 1977). Accordingly boxes 8 and 9 focus on structure and systems associated with the management of diversity, respectively. Finally, differences in the way diversified firms seek, obtain, and exploit *synergies* are often traced to their functional area policies in R&D, manufacturing, marketing, etc., giving rise to box 10, labeled 'management of diversity—synergy'. The elusive nature of synergy has been frequently commented upon (e.g. Davis, 1985). Hence explicit attention to the sources and nature of synergy is warranted in the study of diversification. Porter (1985) discusses synergy extensively under the rubric of 'horizontal strategy'. The concept has also received explicit attention in recent empirical studies (e.g. Lecraw, 1984; Wells, 1984).

The above concepts and their various simple and complex interrelationships can be used as a means of classifying research on corporate diversification, as will be discussed next.

TWO CATEGORIES OF RESEARCH ON DIVERSIFICATION

Within the framework of the classificatory scheme of Figure 1, research on corporate diversification falls into two types. One set of studies is contained entirely within one or the other of the boxes. The second set of studies explores the various simple and complex linkages identified in Figure 1. Studies falling in the first category are concerned with describing the relevant phenomenon and delineating or developing concepts. For example, the many studies devoted chiefly to tracking or chronicling the extent of diversification within a particular economy (Amey, 1964; Chandler, 1962; Didrichsen, 1972; Gort, 1962; Gorecki, 1975; Hassid, 1975; Luffman and Reed, 1982;

Suzuki, 1980; Utton, 1977) are best seen as being contained within the diversity status box. Other examples are Reed and Luffman (1986), who take an in-depth look at the motives behind diversification (box 4), Wood (1971), who discusses the choice of diversification direction (box 5), and Salter and Weinhold (1979), who expound on the choice of diversification mode (box 6). Table 1 summarizes a number of studies that we characterize as 'within-box' or 'theme-oriented' studies.

Studies falling in the second category, 'linkage-exploring' studies, are summarized in Table 2. Such studies have explored simple bivariate relationships as well as more involved contingency-type relationships involving more than a pair of variables, factors, or concepts. In Figure 1 and Table 2 we have sought to identify as many linkages as have been actually explored in empirical studies, rather than suggesting that every concept included in the framework has a relationship with every other one. Table 2 is intended to provide summaries of the major research questions pursued in its constituent studies and their key findings. A concerted attempt has been made to convey the gist of each study as concisely as possible.

Some words about the organization of Table 2 are in order. It lists studies according to the numerical order of the linkages shown in Figure 1. For instance, all studies exploring one or more linkages originating in box 1 are listed first. Studies examining linkages originating in box 2 are listed next, and so on. Within each linkage, studies are listed in chronological order. Studies concerned with the mediating effect of a variable, factor, or theme (say z) on the relationship between two other variables, factors, or themes (x and y) are identified by including the mediating variable as the middle member in the three numeral linkage indicator, i.e., x–z–y. In some studies more than one mediating variable is included. In those cases the variables are placed in the middle and separated by a comma. Since many studies are concerned with more than one linkage, the numerical ordering of the linkages is not perfect. Listing the same study in several places in the table would have perhaps minimized that problem, but we felt it would have also led to an unwieldy organization. We also emphasize that Table 2 is not intended to be an exhaustive listing of all published studies. We wished merely to include illustrative examples of studies focusing on as many different linkages as possible.

Several streams of research within the topic of diversification have been replicated in different national settings. Such studies are catalogued in Table 3, and are of interest for comparative analysis purposes. They highlight similarities and differences in the degree of industrial diversification and the evolutionary patterns of corporate diversification in different countries. They also yield insights on differences in the sociopolitical environment and managerial motives behind diversification and divisionalization across those countries. For example, while a number of studies basically replicated Chandler's (1962) work in various countries, Franko (1974) found that the adoption of the multidivisional structure in European organizations was driven by the nature of the competitive climate rather than by diversification *per se*.

While Figure 1 and the organization of our discussion of it might imply a logical progression from the left to the right, we would like to point out that Figure 1 is merely intended to be a convenient device for the classification of extant research. It is not intended to have any normative implications as to how diversification ought to be implemented.

To some readers, Figure 1 might also seem to emphasize content issues to the exclusion of process issues involved in diversification. It is not our intent to minimize the importance of studying process issues in diversification. Again, Figure 1 is simply intended to be descriptive of the work that has been so far done on the topic of diversification. Such work has predominantly been focused on content issues. There is an increasing awareness among strategic management researchers that there is an acute need to devote more attention to process issues in diversification research (Burgelman, 1983; Haspeslagh and Jemison, 1987; Jemison and Sitkin, 1986a,b; Porter, 1985, 1987; Prahalad and Bettis, 1986). We concur, and will elaborate on this theme in a later section.

In summary, Figure 1 and Tables 1 through 3 are offered as mutually complementary ways of comprehending the research on diversification. They also enable us to critically analyze the progress of diversification research so far, and

Table 1. Conceptual and empirical studies of diversification exploring specific broadly defined themes ('within-box' studies)

Box	Theme	Illustrative studies: Conceptual	Illustrative studies: Empirical
4	Influences on firms' decisions to diversify	Das and Mohanty (1981) Reed and Luffman (1986) Teece (1982)	Baker, Miller and Ramsperger (1981) Chenhall (1984) FTC-sponsored studies (e.g. Carleton, Stewart and Harris, 1980) Khurana (1981); McDougall and Round (1984)
5	Choice of direction of diversification	Ansoff (1957) Hako (1972) Leontiades (1983, 1986a,b) Wood (1971)	Booz, Allen and Hamilton (1985) Palepu (1985) Varadarajan (1986) Varadarajan and Ramanujam (1987)
6	Choice of mode of diversification	Breene and Coley (1984) Jemison and Sitkin (1986a,b) Jensen (1984) Parsons (1984) Salter and Weinhold (1981)	Howard (1982) Paine and Power (1984) Salter and Weinhold (1978, 1981) Souder and Chakrabarti (1984)
7	Diversity status including (a) rationale for the existence of the diversified firm, (b) the extent of firm diversification within an economy, and (c) schemes for measuring diversity	Dundas and Richardson (1980) Williamson (1975)	Chandler (1962) Gort (1962) Hassid (1975) Nathanson (1985) Rumelt (1974) Ward (1976)
8	Management of diversity (structural response to diversity)	Dundas and Richardson (1982) Galbraith and Kazanjian (1986) Kazanjian and Drazin (1987)	Berg (1973) Chapmin and Jermain (1985) Chandler (1962) Hoskisson (1987) Pitts (1976, 1977)
9	Management of diversity (concepts, techniques, systems, and procedures for managing diversity)	Dundas and Richardson (1982) Hall (1987) Literature on portfolio matrix approaches (e.g. Day, 1977; Hedley, 1977; Wind and Mahajan, 1981) Prahalad and Bettis (1986)	Berg (1973) Bettis and Hall (1981b) Chapmin and Jermain (Hamermesh (1986) Haspeslagh (1982) Vancil and Lorange (1975)
10	Management of synergy (R&D, manufacturing, marketing, finance)	Bettis (1981) Buzzell and Gale (1987) Carter (1987) Chatterjee (1986) Didrichsen (1972) Haspeslagh and Jemison (1987) Lemelin (1987) MacDonald (1985) Porter (1985) Salter and Weinhold (1979)	Bettis (1981) Buzzell and Gale (1987) Carter (1977) Caves, Porter, Spence and Scott (1980) Lecraw (1984) Porter (1987) Ravenscraft and Scherer (1982a) Wells (1984)

Table 2. Conceptual and empirical studies exploring relationships between diversification themes ('linkage-exploring' studies)

Study	Link(s)	Key Ideas/findings
Dundas and Richardson (1980)	1–4	Specific types of market failures give rise to specific classes of diversified firms. Imperfections in the product and technological markets lead to related–diversified firms. Capital market failure gives rise to unrelated–diversified firms.
Miles (1982)	1–4 2–4 3–4 11–4	The initial diversification activities of firms (in the tobacco industry) can be traced to the following environmental factors: the smoking-and-health controversy, decline in industry growth rate, market share erosion in traditional business. Past performance resulting in excess investible cash is also a major factor.
Chenhall (1984)	1–7 2–7 3–7 9–7	For Australian manufacturing enterprises a multivariate relationship is uncovered between the extent of a firm's diversification and a host of environmental, market structure, organizational, and managerial variables. These include environmental illiberality, stage of product life cycle, the extent to which managers followed an aggressive decision orientation, marketing sophistication of the firm, importance of portfolio risk reduction as a goal, and sophistication of the firm's strategic planning.
Yip (1982)	2, 7–6	The structure of the entered market and the diversity status of the firm are among the major determinants of the choice of entry mode, i.e. internal development versus acquisition.
Lecraw (1984)	2, 3–5 2, 3–7	The characteristics of the base industry of a firm and the firm's characteristics influence its diversification strategy.
	7–2, 3–11	Firms often suffer penalties for not following an appropriate diversification strategy that reflects the influences of the characteristics of the firm and its base industry.
Williamson (1975)	2, 3–7	The extent of a firm's diversification is determined by structural variables in the industries in which the firm operates, and the economics of organizing activities within the firm compared to via the market.
	7–8	The multidivisional form (M-form) of organization is more efficient than the functional or unitary form (U-form) for very large, diversified organizations.
Ahimud and Lev (1981)	3–4	Managers engage in conglomerate mergers in order to reduce their unemployment risk.
	3–6	Manager-controlled firms engage in conglomerate acquisitions to a greater degree than owner-controlled firms.
	3–7	Regardless of the means by which diversification is achieved, manager-controlled firms are more diversified than owner-controlled firms.
Levitt (1975)	3–5 3–7	Over time most dominant vertical firms evolve into related–diversified firms. They start in a simple, narrow, industry, became larger, and gradually expand by diversifying into related industrial sectors.

Table 2. Continued.

Study	Link(s)	Key Ideas/findings
Levitt (1975) (continued)	3–6	Diversification through acquisition is more common than diversification through internal development.
	7–11	The diversity of industrial operations lead to better all-round management in the company, performance, and shareholder wealth enhancement.
Song (1983)	3–5	Significant structural matches exist between acquiring and acquired firms. These matches are designed to exploit strengths and avoid weaknesses in growth, profitability, and liquidity.
Roberts and Berry (1985)	3–5	Diversification into new products and markets should be guided by the newness of the technology and market to the firm and its degree of familiarity with the new technology and the new market.
Didrichsen (1972)	3–6	Internal diversifiers start with a competence either in a major industry or narrow specialty and branch into a variety of fields. In contrast, acquisitive conglomerates tend to be financially oriented.
Berry (1971)	5–11	Four-digit inter-industry activity within two-digit industry groups (narrow spectrum diversification) is more conducive to corporate growth than four-digit interindustry activity among two-digit industry groups (broad spectrum diversification).
Jacquemin and Berry (1979)	5–11	Both diversification *into new* two-digit categories and diversification *within present* two-digit categories are positively related to the asset growth of the firms.
Lubatkin (1987)	5–11	Test of the stock market's valuation of conglomerate acquisitions revealed that conglomerate acquisitions typically outperform related acquisitions.
Halpern (1973) Dodd (1980) Asquith (1983) Jensen and Ruback (1983) Weston and Chung (1983)	6–11	The emerging consensus on the effects of mergers on stockholders' wealth is that (a) the acquired firm's shareholders receive a significant positive abnormal returns and (b) the acquiring firm's shareholders receive positive but non-significant abnormal returns.
Backaitis, Balakrishnan and Harrigan (1984)	7–3	For any level of sales, firms pursuing a related diversification strategy have the greatest market power.
	7–3–11	As a result of the sales dispersion effect, diversified firms with market power perform better than diversified firms that are not market leaders.
Chandler (1962) Wrigley (1970) Channon (1971) Pavan (1972) Pooley-Dias (1972) Thanheiser (1972) Rumelt (1974)	7–8	This extensive body of literature focuses on the structural changes that followed/accompanied diversification by firms in the major industrialized nations. The general pattern identified is that firms evolve in a fairly predictable fashion from a functional to a multidivisional form of organization as they grow from single-business to multi-business firms.
Leontiades and Tezel (1981)	7–9	The more diversified the firm, the more time is spent on corporate-level (relative to business-level) planning.
Weston and Mansinghka (1971)	7–11	Performance, measured by ratio of net income to net worth, is somewhat higher for conglomerate firms, but the difference is not statistically significant.

Table 2. Continued.

Study	Link(s)	Key Ideas/findings
Weston and Mansinghka (continued)	7–2–11	Defensive diversification (i.e. diversification away from low-profitability industries) often enables firms to increase their profitability from inferior to average levels.
Rumelt (1974)	7–11	Evaluated in terms of capital productivity measures, related–constrained firms outperform related–linked firms which in turn outperform unrelated–diversified firms.
Salter and Weinhold (1979)	7–11	Conglomerates show poorer performance relative to industry averages, particularly with respect to capital productivity measures.
Bettis (1981)	7–11	Related–diversified firms outperform unrelated–diversified firms.
Bettis and Hall (1982)	7–11	Performance differences between related and unrelated firms in Rumelt's (1974) study were largely due to the overrepresentation in the related–constrained category of firms from one industry noted for high levels of profitability (pharmaceuticals). Differences noted by Rumelt (1974) disappeared after correcting for this bias in the sample.
Michel and Shaked (1984)	7–11	Firms diversifying into unrelated areas are able to generate statistically superior performance over those with businesses that are predominantly related.
Montgomery and Singh (1984)	7–11	The systematic risk (beta values) for unrelated diversifiers is significantly higher than for other diversification categories.
	7–3–11	The debt position and lower market power of unrelated diversifiers contribute to their lower betas.
Palepu (1985)	7–11	Firms pursuing a predominantly related diversification strategy outperform firms pursuing a predominantly unrelated diversification strategy.
Varadarajan (1986) Varadarajan and Ramanujam (1987)	7–11	Firms pursuing a strategy of low broad-spectrum diversification (BSD)—high mean narrow-spectrum diversification (MNSD) financially outperform those pursuing a strategy of high BSD–low MNSD.
Jose, Nichols and Stevens (1986)	7–11	Diversification has a statistically significant and positive influence on the *value* of the firm.
	7–10–11	Firms' R&D intensity and promotional intensity also influence the value of the firm.
	7–10–11	Differences exist between related and unrelated diversified firms with respect to advertising expenditures, R&D expenditures, and capital intensity.
		Firms pursuing related–constrained diversification strategies are more *tightly knit* (i.e. depend on fewer business units for the bulk of their revenues) than firms pursuing either related–linked or unrelated diversification strategies.
Christensen and Montgomery (1981)	7–2–11	Market structure variables have a moderating effect on the diversification–performance link.

Table 2. Continued.

Study	Link(s)	Key Ideas/findings
Rumelt (1982)	7–2–11	Even after adjusting for industry effects, a declining profitability premium is associated with increasing diversity.
Galbraith, Samuelson, Stiles and Merrill (1986)	7–2–11	Unrelated diversification represents a hedging strategy against the technological surprises that occur in R&D-intensive industries.
Wernerfelt and Montgomery (1986)	7–2–11	Industry growth rate and average industry profitability have different implications for efficient (i.e. firms with a low Herfindahl diversification index) versus inefficient diversifiers.
Bettis and Mahajan (1985)	7–2, 3–11	Related diversification is a necessary but not sufficient condition to achieve a favorable risk/return performance. Firms in efficient clusters (relatively high performance at a medium risk level) tend to be in higher growth industries and have relatively lower level of debt financing.
Montgomery (1985)	7–2, 3–11	After controlling for a firm's weighted market share (market power in individual markets) and market structure variables (industry profitability and concentration), there is no statistical support for the generalized market power view of diversification, which sees firms' profitability as a function of their extent of diversification.
Hoskisson (1987)	7–8–11	The implementation of the M-form structure increases the rate of return of firms that diversify through an unrelated business strategy, but decreases the rate of return of firms that adopt vertically integrated and related business approaches to diversification. Risk or variability of firm rate of return generally decreases after the M-form restructuring regardless of the diversification strategy a firm has implemented.
Hill and Hoskisson (1987)	7–8, 9–11	Different control arrangements within the basic M-form framework are necessary to realize the economic benefits associated with different diversification strategies.
Nathanson and Cassano (1982)	7–8, 9–11	Performance differences between diversification categories are related to organizational differences in how diversity is managed: (a) the presence, size, and reporting relationship of group staff; (b) the presence, size, and reporting relationship of corporate staff; (c) the extent of divisional self-containment; (d) family ownership and domination; (e) top-down planning; and (f) strength of coordinating devices.
Dundas and Richardson (1982)	7–8, 9–11	A number of administrative contingencies are critical for successful implementation of the unrelated diversification strategy. These concern policies regarding acquisition, divestment, portfolio structure, management and organization.
Berg (1973)	8–6	Significant differences exist in the organizational structure at the top level (corporate headquarters) of firms pursuing internal development versus acquisition-based diversification.

Table 2. Continued.

Study	Link(s)	Key Ideas/findings
Berg (1973) Pitts (1974, 1976, 1977)	8–6	Structural differences exist between firms pursuing internal development versus acquisition mode of diversification. While the structural orientation of internal diversifiers is characterized by vigorous pursuit of inter-divisional resource sharing, the structural orientation of acquisitive diversifiers tends to be characterized by very little inter-divisional resource sharing and deliberate forfeiture of such opportunities.
Bettis and Hall (1981b)	9–7	Firms in various diversification categories differ in regard to the use of portfolio concepts as a management system.
The vast literature on portfolio matrices (e.g. Day, 1977; Hedley, 1977; Haspeslagh, 1982)	9–2, 11–7	The firm's relative competitive position (e.g. relative market share in the BCG matrix: link 11–9) and industry attractiveness (e.g. market growth rate in the matrix link 2–9) are relevant considerations for making decisions as to which business units to retain and which ones to delete from a firm's portfolio. Divestitures based on such analysis lead to a change in the diversity status of a firm (link 9–7).
Montgomery, Thomas, and Kamath (1984)	9–7–11	The diversity status of a firm is affected not only by its actions in the realm of acquisitions and internal development, but also by its divestitures. The stock market's valuation of a firm's divestiture decisions (link 9–11) has been investigated by a number of researchers. The deliberations of a firm that culminate in its decision to divest one or more of its lines of business is represented by link 9–7.
Grant, Jammine, and Thomas (1986)	11–7	Among large British manufacturing firms profitability is positively related to both product diversification and multinational diversification. The principal direction of causation runs from profitability to diversification. No significant differences exist between related and unrelated diversification strategies.

to identify gaps in the literature. In the next section we offer a critique of diversification research based on such an analysis.

A CRITIQUE OF RESEARCH ON CORPORATE DIVERSIFICATION

It is obvious from a glance at Figure 1 and Table 2 that empirical research on diversification has explored several of the simple and complex relationships discernible in Figure 1. Undoubtedly some linkages have been the subject of more extensive attention than others. Three of the most pervasive themes in the empirically based literature include (a) the effect of mode and/or direction of diversification on market structure and performance; (b) the interrelationships among diversity status, market structure, and performance; and (c) the relationship between diversity status and structure, or, more accurately, the directionality of relationship between (diversification) strategy and structure. Because of their centrality in the research we will comment briefly on each stream below, before proceeding to provide an overall evaluation of diversification research.

Mode and/or direction of diversification and market structure/performance

This stream is represented by linkages originating in boxes 5 and 6 and terminating in boxes 2 and 11. A large body of work in industrial organization economics has been concerned with the effects of conglomerate diversification on market structure

(Arnould, 1969; Hassid, 1975; Lecraw and Thompson, 1978; Prosper and Smith, 1971). These studies employ a public policy perspective and are captured by links 5–2 and 6–2. Other studies, usually from the finance area, explore the effect of conglomerate diversification on performance defined as risk reduction rather than return maximization (Joehnk and Nielsen, 1974; Lev and Mandelker, 1972; Melicher and Rush, 1973, 1974; Smith and Schreiner, 1969; Weston, Smith and Shrieves, 1972). These studies explore link 6–11. In the industrial organization economics studies conglomerate diversification is usually understood as unrelated diversification, whereas in the finance stuides it often refers to diversification through merger or acquisition. These differences in terminology render comparison of findings rather difficult. The findings themselves are inconclusive as to whether conglomerate/unrelated diversification results in anticompetitive effects and whether it does lead to risk reduction for investors.

Diversity status, market structure, and performance

These concepts come together in studies exploring links originating in box 7 and terminating in box 2 or 11. Most prominent of all these studies is the work of Rumelt (1974), which established differences in financial performance across diversification categories (link 7–11) and has been extended and replicated in numerous ways. Some studies argue that, far from being a causal influence on performance, diversity is really a result of poor or superior performance in core businesses, suggesting the link 11–7. For instance, Peters and Waterman (1982) suggest that excellent (i.e. superior-performing) companies generally 'stick to the knitting'. Along similar lines, Burgelman (1983) asserts that initiatives toward the creation of new ventures are often stimulated by deteriorating performance in existing businesses.

Most early industrial organization economics studies have been concerned with the effects of diversification on market structure (e.g. Berry, 1974; Rhoades, 1973, 1974) rather than performance, and provide the basis for link 7–2. The diversified firm was, and perhaps still is, widely believed to be able to exercise market power through such mechanisms as cross-subsidization, predatory pricing, reciprocity in buying and selling, and creating or raising barriers to entry (Palepu, 1985). Literature focusing on multipoint competition (the phenomenon of groups of diversified firms whose activities span to a significant extent the same markets) also provides support for the importance of examining link 7–2 (Heggestad and Rhoades, 1978; Karnani and Wernerfelt, 1985; Porter, 1985; Scott, 1982).

The converse idea that market structure determines diversity suggests the reverse link 2–7, and follows from the work of Williamson (1975). Specifically, the argument goes that different diversity profiles arise due to different forms of market failure (Dundas and Richardson, 1980; Lecraw, 1984). Note, therefore, the bidirectional arrow connecting boxes 2 and 7 in Figure 1. Furthermore, in an influential dissertation, Montgomery (1979) proposed that performance differences attributed by Rumelt (1974) to diversification categories may, in fact, be due to systematic market structure differences across the diversification categories. In other words, the relative strengths of links 2–11 and 7–11 are at issue. The studies of Bettis and Mahajan (1985), Lecraw (1984) and Montgomery (1985) also attest to the importance of links 7–2, 7–11, and 7–2–11. For these reasons, market structure must be considered a central variable in the literature on diversification and performance.

Although market structure has been most often examined as a mediator of the relationship between diversity and performance, on rare occasion it has also been posited to influence other aspects of diversification, e.g., choice of diversification mode (see Yip, 1982, who examines link 2–6 focusing on barriers to entry, a market structure variable). The central location of box 2 in Figure 1 is, therefore, not just accidental.

The collective evidence from this stream of work seems to be that diversity status is a powerful predictor of performance but market structure does exert an influence on performance of diversified firms that is independent of the effect of diversity *per se*.

The relationship between diversity and structure

The proposition that structure follows strategy originated with the work of Chandler (1962), and has been repeatedly upheld in a succession of

Table 3. Studies of diversification in various national contexts

Country	Prominent studies
Australia	Chenhall (1984) McDougall and Round (1984)
Britain	Amey (1964) Channon (1971) Grinyer, Yasai-Ardekani and Al-Bazzaz (1980) Hassid (1975) Luffman and Reed (1982) Utton (1977)
Canada	Caves, Porter, Spence and Scott (1980) Lecraw (1984)
France	Pooley-Dias (1972)
Germany	Buhner (1987) Thanheiser (1972)
India	Khurana (1981)
Italy	Pavan (1972)
Japan	Kono (1985) Suzuki (1980)
U.S.A.	Chandler (1962) Gort (1962) Wrigley (1970) Rumelt (1974)
Multinational settings	Channon and Jalland (1978) Daniels, Pitts and Tretter (1984) Stopford and Wells (1972)

Note: This table gives illustrative examples of studies that have (a) looked at the extent of diversification within a particular economy, (b) replicated strategy–structure work along the lines of Chandler (1962), and (c) examined strategy–structure–performance relationships.

studies done at Harvard (Channon, 1971; Pavan, 1972; Pooley-Dias, 1972; Rumelt, 1974; Thanheiser, 1972; Wrigley, 1970). The counter-proposition that often it is structure that drives strategy was originally advanced by Bower (1970). Empirical tests of, and conceptual challenges to, the directionality of the strategy–structure linkage have since appeared in the literature at periodic intervals (e.g. Donaldson, 1982; Grinyer and Yasai-Ardekani, 1981; Hall and Saias, 1980).

A small number of studies have examined the performance implications of contingency-type relationships between diversity and structure, diversity and systems, etc., at both conceptual and empirical levels (e.g. Grinyer, Yasai-Ardekani and Al-Bazzaz, 1980; Hill and Hoskisson, 1987; Hoskisson, 1987; Kazanjian and Drazin, 1987; Pitts, 1977). These studies constitute the basis for links 7–8–11 and 7–9–11 in Figure 1.

Studies focusing on link 6–8 examine the structural differences between firms characterized as internal growth diversifiers versus those characterized as acquisitive diversifiers (Berg, 1973; Pitts, 1974, 1976, 1977). These studies suggest that the structural orientation of internal growth diversifiers is characterized by vigorous pursuit of interdivisional resource sharing, while that of acquisitive diversifiers reflects little emphasis on resource sharing, and, indeed, may even deliberately discourage such sharing.

It is evident from this stream of work that the benefits of diversification are not automatically realized, and administrative mechanisms must be designed to consciously realize these benefits. Structure appears to be the most important of these administrative mechanisms, although many studies have also focused on systems used for managing diversity (Bettis and Hall, 1981b; Haspeslagh, 1982).

An overall evaluation

The brief discussion of some of the key themes in the literature of diversification given above illustrates how our framework can be used to comprehend and classify extant research. While it would be possible to continue discussing each major and minor link in Figure 1, such a discussion would not add much value beyond the summaries provided in Table 2. Therefore we will assume a more impressionistic posture from this point onward, critiquing the literature collectively with a broad-brush approach. Our emphasis will be on recurrent shortcomings rather than on individual studies.

Although the topic of diversification has stimulated a slew of research studies exploring various themes and linkages, a substantial body of the work appears to be incremental in nature. The rationale for many of the studies—within the strategic management field in particular—appears to be nothing more ambitious than the opportunity to experiment with a different definition of diversification, a different measure of diversity, or a different approach to conceptualizing and measuring its effectiveness. It is difficult for us not to conclude, after this wide-ranging review of several streams of literature, that much room remains for breakthroughs in this seemingly oversaturated topic of inquiry. For instance, we still do not know why synergy in diversification is so elusive to obtain, or why diversification efforts of a given firm are sometimes successful and sometimes not.

As we noted earlier, and as a glance at Tables 1 and 2 will readily reveal, some aspects of diversification have been more extensively researched than others. We will withhold our discussion of the relatively less researched aspects until later when we examine future research needs in this area. For the present we will concentrate on what is perhaps the most extensively researched stream, namely the relationship between diversity status and performance. This work has primarily been cross-sectional in nature, which is disconcerting given that diversification efforts typically take a very long time to reach reasonable levels of effectiveness (Biggadike, 1979). Much of the work also happens to be bivariate in nature, although recently many studies have adopted contingency perspectives to examine more complex interrelationships.

Aside from its cross-sectional and predominantly bivariate nature, the research stream also raises several conceptual and methodological issues. We will focus our discussion on the following five issues: (a) the theoretical bases for the diversification–performance nexus, (b) the measurement of diversity and performance, (c) temporal stability issues, (d) possible spuriousness of observed results, and (e) implementation of diversification strategies. Each of these issues will be discussed next.

Theoretical bases for the diversification–performance nexus

While many arguments rooted in economic theory exist as to why diversification is pursued by managers (Reid, 1968; Sutton, 1973) or why the diversified form of business organization arises (Dundas and Richardson, 1980; Williamson, 1975), in most empirical tests of the diversification–performance nexus these theoretical bases are largely implicit.

Beattie (1980) provides an overview of various theories of conglomerate diversification. First, there are different variants of profit-maximizing behavior; namely, the pursuit of monopoly power, the exploitation of cost opportunities due to synergy, and the reduction of risk. Second, some theories of diversification posit managerial growth-maximizing behavior as the wellspring of diversification decisions. Finally, financial models assume 'financial gamesmanship' on the part of corporate managers as a result of capital market imperfections. These models concentrate on the accounting effects of diversification activities *per se*, more in order to verify the efficiency of financial markets than to assess the effectiveness of diversification pursued as a growth strategy. Indeed, their central proposition is that under perfect capital markets, diversification should provide no benefits to investors since they can diversify their protfolios themselves at a lesser cost.

Most empirical studies proceed on the assumption that only one of these models is operating, and accordingly posit unitary motives for diversification. This is implicit in their restricted choice of indicators for the assessment of performance, an issue we will discuss in greater detail later. Economic studies have generally emphasized the market power effects of diversification, finance studies have focused on the market efficiency argument, and strategy studies have explored the extent to which the benefits of synergy have been or can be translated into profitability (Lubatkin, 1983).

Speaking of strategy studies, most have ignored the risk aspects entirely until recently, with the notable exception of Amit and Livnat (1988b), Barton (1988), Bettis and Mahajan (1985), Hoskisson (1987), and Montgomery and Singh (1984). Thus, the possibility that, under efficient capital markets, the rationale for expecting differences in performance (risk-adjusted) between diversified and undiversified firms may be unfounded is seldom admitted explicitly.

Strategic management research on diversification appears to be just as negligent in regard to examining the managerial goals argument, which has been, paradoxically enough, more thoroughly studied by industrial organization economics scholars (e.g. Ahimud and Lev, 1981). This criticism has been well expressed recently by Reed and Luffman (1986).

To sum up, each stream of research examining the relationship between diversity status and performance has been guided by a set of critical paradigmatic assumptions regarding managerial motives for diversification with a consequent restriction of the research to narrow performance measures. Their explanatory power has been limited because of their neglect of other equally potent motives. An integrative perspective will hopefully impel future efforts to examine more closely the underlying rationale for diversification before proceeding with assessments of the strength of empirical relationships. By integrative approach is meant the use of multiple conceptual lenses to examine a phenomenon at hand, á la Allison (1971). Such a perspective should help accommodate the complex web of reasons that induce a firm to diversify.

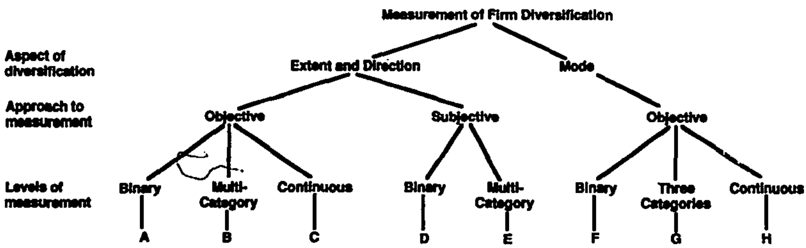
Measurement of diversity and performance

Diversity

In contrast to the inadequate attention given to direct examinations of the motives underlying the diversification decision, the extent of energy devoted to developing measures of diversity is impressive. Figure 2 is intended to give an overview of the variety of approaches used. A survey of the literature reveals stark differences across disciplines, as well as within them, in the definitions and operationalizations adopted.

Basically, studies of diversification have focused on the extent (i.e. less or more), direction (i.e. relatedness or unrelatedness), and mode (i.e. internal versus acquisition-based) of diversification. Studies rooted in the industrial organization economics paradigm have generally been concerned mainly with the extent of diversification, and have used objective measures based on SIC counts to capture this aspect of diversification. Despite the apparent objectivity, concerns about the quality of data from different sources and their level of aggregation (i.e. plant versus firm) have led to empirical assessments of the likely impact of alternate operational measures of diversity (e.g. Amit and Livnat, 1988a,b; Gorecki, 1980).

Many of the early studies in both the finance and industrial organization economics areas focused almost exclusively on the so-called 'conglomerate' form, giving rise to a large body of work on the performance of conglomerate firms (Beattie, 1980; Conn, 1973; Holzmann, Copeland, and Hayya, 1975, Levy and Sarnat, 1970; Lynch, 1971; Markham, 1973; Mason and Goudzwaard, 1976; Melicher and Rush, 1973,



Approach	Illustrative Examples
A	Conglomerates vs. non-conglomerates (e.g., Beattie, 1980)
B	Broad and Narrow spectrum diversity (e.g., Varadarajan, 1986)
C	Herfindahl and Berry indices (e.g., Jacquemin & Berry, 1979)
D	Product diversity and market diversity (e.g., Ward, 1976) Diversifiers vs. non-diversifiers (e.g. McDougall & Round, 1984)
E	Relatedness-based measures (e.g., Rumelt, 1974; Nathanson, 1985)
F	Internal vs. acquisitive diversifiers (Pitts, 1977)
G	Internal growth, acquisitions-based growth, mixed mode (e.g., Lamont & Anderson, 1985)
H	Diversifying acquisition ratio (Pitts, 1978)

Figure 2. Approaches to the measurement of firm diversification

1974; Smith and Schreiner, 1969; Westerfield, 1970). Interestingly, the term 'conglomerate' is not consistently applied, and is used in reference to both the firm as an entity and to certain types of merger activity resulting in a firm's entry into unrelated lines of business (e.g. Boyle, 1970; Reid, 1971). However, in our framework the term conglomerate has been used to describe a firm's diversity status, and not its preferred mode of diversification.

In many studies diversification is treated as a continuous variable, while in others, particularly within the strategic management discipline, categories are developed using somewhat arbitrary cut-off points. While in some studies only two categories are employed (e.g. conglomerates and non-conglomerates, as in Beattie, 1980), other studies group firms into multiple categories. For instance, Daniels, Pitts and Tretter (1984) categorized firms as low, medium, or high in diversity according to the number of distinct lines of business in which they were active. Some researchers have used multiple continuous measures in an attempt to capture both the extent and direction of diversification. Such an approach is best exemplified by Jacquemin and Berry's (1979) entropy measures. Yet other studies start with multiple continuous measures but subsequently transform them into categorical measures in order to develop a parsimonious set of diversification categories, typically using the median or a point of discontinuity along their continuous measures as cut-off points. Studies by Palepu (1985) and Varadarajan (1986) illustrate these recent approaches.

Strategic management studies of diversification have generally followed Wrigley's (1970) and Rumelt's (1974) lead and employed subjective categories. In many studies, Rumelt's (1974) classification is adopted after a subjective reclassification by the researcher to confirm the appropriateness or current validity of Rumelt's original classification. Bettis (1981), Bettis and Hall (1982), Bettis and Mahajan (1985), Bettis, Hall and Prahalad (1978), and Montgomery (1979) basically relied on Rumelt's (1974) sample and categories. Montgomery (1982) showed that Rumelt's categories are generally robust and accord well with the conventional and more objective SIC count measures. Nathanson (1985), however, casts some doubts on the managerial relevance of Rumelt's approach and goes on to propose a classification scheme of his own.

Other variations of the subjective approach to measuring diversity are also evident in studies of diversification. McDougall and Round (1984) created a binary scheme to classify firms as 'diversifiers' and 'non-diversifiers' using managers' perceptions. Ward (1976) also relied on managerial perceptions, but used the notion of 'difficulty of entry' and distinguished between 'product diversity' and 'market diversity'. Bane and Neubauer (1981) constructed multidimensional diversity classes using subjective *a priori* dimensions and clustering procedures. Their basic proposition was that the failure of foreign subsidiaries of continental European companies could be explained by their diversity. They found that their results were sensitive to the method used to measure diversity.

Since the development of the body of literature on diversification within the strategic management field has essentially involved successive refinements in the measurement of the concept of diversification, it is appropriate to comment at this point on the cumulative findings of this research. The use of alternative approaches for measuring diversity has not led to greater insights into the impact of diversification on performance. The results of most studies have merely extended or marginally modified Rumelt's (1974) original findings. Christensen and Montgomery (1981) and Montgomery (1979, 1982) raised a controversy about the relative influence of key market structure variables and diversity status as alternative explanators of firm performance, but Rumelt (1982) used a rigorous theoretical framework to defend the role of diversification strategy as a key influence on performance even after controlling for market structure influences.

Montgomery's (1985) study attempted to assess the relative importance of the collusive or general market power that is believed to result from increasing levels of diversification versus the specific market power that stems from a firm's relative competitive position in particular market settings. She found that, after controlling for a firm's weighted market share and selected market structure variables (industry profitability and industry concentration), the effect of diversification on performance was small and nonsignificant. Whether the use of an alternative measure of diversity in her study would have led to a different pattern of results is speculative, but our point is that despite various refinements in the approach to measuring diversity, the findings of studies attempting to demonstrate the effects of diversification on performance remain inconclusive. In a recent study, Wernerfelt and Montgomery (1986) add yet another dimension to the debate by making a distinction between efficient diversifiers and inefficient diversifiers, which are defined as firms with low or high Herfindahl diversification indices, respectively. Market structure variables (industry growth and industry profitability) were found to have differential implications for the two categories of diversifiers.

In summary, the concept of diversification does not lend itself to easy conceptualization and measurement. A variety of measures have been developed, but as Pitts and Hopkins (1982) stress, the choice of measure must be guided by the research question at hand. In addition, it would be desirable for researchers to employ multiple measures in order to establish the robustness of their findings to the choice of measure, as was done in a recent study by Amit and Livnat (1988b).

Performance

Regarding the measurement of performance, there are clear differences again within the three disciplinary streams. Early studies in industrial organization economics were concerned with the possible anti-competitive effects of diversification, and focused their attention on market structure variables. Using a public policy perspective, studies have examined the effect of diversification on such variables as concentration, industry growth, innovation, etc. The effect of diversification on the firm's rate of growth and vice-versa has also been of significant interest (Berry, 1971; Hassid, 1977).

The finance literature has been concerned with testing the extent of portfolio risk reduction achieved by diversification from an investor's, as opposed to a managerial, point of view. Their dependent variables have been various market measures of return and risk, although some studies have also used accounting-based measures of risk as well as return.

A review of the literature reveals that accounting-based measures have been the primary focus of much of the strategic management research on diversification. However, there is at present a lively interest within the strategic management field in adopting market-based performance measures (Amit and Livnat, 1988a, b; Dubofsky and Varadarajan, 1987; Galbraith, Samuelson, Stiles and Merrill, 1986; Hitt and Ireland, 1987; Montgomery, Thomas and Kamath, 1984; Woo, 1984). We welcome this trend given the general weaknesses attributed to accounting-based measures of performance, but it is interesting to note that several years ago, Holzmann, Copeland and Hayya (1975) deplored the exclusive focus on market-based measures of performance in studies of diversification in the finance area. They argued that decisions regarding diversification are made by managers using profitability data derived from financial statements and, hence, it would be more appropriate to use accounting-based measures to assess the efficacy of diversification efforts. Thus, it appears that tradition dictates the use of a particular performance focus, and there are occasional rumbles of dissatisfaction with the dominant focus within each discipline.

In summary, the same conclusions that we presented in regard to the measurement of diversity pertain here also. The availability of alternative measures argues strongly for the use of an integrative view and reliance on multiple measures of effectiveness so that the cumulation of knowledge across disciplines can proceed smoothly.

Temporal stability issues

Most explorations of the diversity–performance relationship are cross-sectional in nature. Whether the relationship observed in a particular study is generalizable over time remains an interesting but relatively less researched issue. Some studies that specifically tested for the temporal stability of the diversity–performance relationship over the business cycle have found that the relationship does vary over the cycle. Hill (1983) studied the performance of single and closely related businesses, concentric diversifiers, and conglomerates over the period 1970–76. He characterized this time period as encompassing boom conditions from 1970 to 1973, slump conditions thereafter, followed by a recovery beginning in 1976. He reported that the performance of conglomerates improved significantly more than that of non-conglomerates during the upturn, but deteriorated more rapidly during the downturn, than that of the two non-conglomerate categories.

A study by Ciscel and Evans (1984) found that returns to diversification are sensitive to the business cycle but their results do not strictly correspond to those of Hill (1983). Using a business count approach, Ciscel and Evans (1984) examined the diversity–performance relationship over two recessionary periods (1969–70 and 1974–75) and two expansionary periods (1971–73 and 1976–78). They found that moderate levels of diversification show improved relative performance in the expansionary periods, while high levels of diversification generally hurt performance in recessionary periods. Yet another attempt at capturing business cycle effects was reported by Amit and Livnat (1988a). Unlike Hill (1983) and Ciscel and Evans (1984), however, they did not assess the relationship at different points in time, but constructed an elaborate diversification measure that took into account the business cycle characteristics of the sectors into which a firm had diversified. Based on data for the 1977–83 time-frame, they concluded that the cash flows and earnings of firms that diversified into industries with different economic attributes were more stable than those of undiversified firms.

But for these exceptions, most strategy studies have spanned the 1970s and have made no allowance for business cycle effects. Michel and Shaked's (1984) study is among the few that allude to this issue. The authors characterize the time-frame of Rumelt's (1974) study (the 1949–69 period) as a stable, low inflation and low interest rate environment. In contrast, the time-frame of their own study (1975–81) is stated to be one of considerable uncertainty largely precipitated by the oil crisis of the early 1970s. Not surprisingly, the two studies reach different conclusions regarding the performance consequences of unrelated diversification.

The implication of the above studies is that the diversity–performance relationship is not time-invariant. Obvious as this may seem, broad generalizations regarding the value of diversification are by no means uncommon (e.g. Porter, 1987). For the researcher interested in pursuing this topic further, the importance of periodic replications does not require belaboring. An examination of such a reassessment of the diversification–performance connection using a new conceptualization of diversity and current data is the work of Varadarajan and Ramanujam (1987).

In addition to the apparent temporal instability of the diversity–performance connection, another troubling issue is the frequent practice in strategic management research of using 4- or 5-year averages of performance, on the one hand, while examining diversity at only one point in time, on the other. While some researchers (e.g. Rumelt, 1974) took particular care to ensure that the diversity profiles of the firms in their sample remained unchanged throughout the time-frame over which the performance variable was averaged, many studies provide no evidence of having performed this crucial control check. Unlike structural features of industries, which tend to change little or only slowly, firm diversification profiles are likely to change quite abruptly due to acquisitions and divestitures.

Acquisition and mergers have not only become more and more prevalent, but there has also been a progressive increase in their size (Bradley and Korn, 1982; Davidson, 1985; *Fortune*, 1982, 1983, 1984, 1985, 1986, 1987). The increasing incidence of divestitures (Adkins, 1981; Brooks, 1984; Duhaime, 1981; Duhaime and Grant, 1984; Hearth and Zaima, 1984; Landro, 1984; Montgomery, Thomas and Kamath, 1984; Nees, 1981) and other forms of restructuring (*Business Week*, 1981, 1985b) are also equally well documented. Under these circumstances it is extremely difficult to untangle the effects of diversity on performance over 3–5-year time-frames, since diversity profiles may change over those periods. Also, in the case of a large merger it is probably unreasonable to expect the acquiring firm to achieve performance improvements within the time windows usually monitored in diversity–performance studies. Internal growth may take even longer to yield returns, as shown by Biggadike's (1979) research. All these factors further reinforce the criticism that the issue of stability of diversification categories, as well as the stability of the diversity–performance relationship, are pressing issues that warrant as much attention as the measurement of diversity itself. Given these facts, the findings of studies using 5-year time spans to examine cross-sectional differences across diversity categories seem to be of questionable validity.[2]

[2] An important issue here is that looking at the performance consequences of decisions pertaining to direction or mode of diversification represents an examination of a disequilibrium

Another timing-related criticism of the diversification–performance research is the fact that most of the results may be dated and of limited managerial significance today. As Davis (1985) notes, the environment of today is marked by numerous structural changes. Results of studies using 1970s' data may not have much practical relevance anymore.

In summary, researchers need to (a) be cautious in specifying the time-frames of their study (for instance, whether recessionary or expansionary); (b) qualify their findings to reflect the possibility of temporal effects; (c) avoid excessive reliance on the data bases of earlier studies; and (d) perform periodic replications.

Possible spuriousness of observed relationships

It has been frequently suggested that the diversity–performance relationship may be a spurious one, or that it may be an artifact of sampling problems. For instance, Abell (1980) critiqued the stream of research focusing on the relationship between *corporate* diversity and performance by pointing out that these studies fail to address the question of how the *product-market* or business unit strategies of the individual businesses within the corporation relate to overall organizational performance. Along similar lines, Porter (1987) notes that diversified firms do not compete, but their business units do. He adds that corporate diversification strategy must grow out of and reinforce competitive (business unit) strategy.

Christensen and Montgomery's (1981) study was based on the idea that market structure exerts a stronger impact on performance and that Rumelt's (1974) findings may simply be a reflection of systematic market structure differences across the diversification categories. In another challenge to the robustness of Rumelt's (1974) conclusions, Bettis and Hall (1981a, 1982) pointed out the predominance of one particular industry (pharmaceuticals) in Rumelt's (1974) related–constrained category, and thereby suggested that his findings may be distorted by sampling bias.

Rumelt's (1974) use of a highly heterogeneous sample that included firms from diverse economic sectors also raises concerns regarding the appropriateness of using pooled data in cross-sectional analysis of the diversity–performance relationship. Bass, Cattin and Wittink (1978) warn against such pooling unless tests of sample homogeneity yield positive results. While a few studies restricted their samples to a single industry category or homogeneous groups of industries, sample heterogeneity is more the rule than the exception in large sample cross-sectional diversification studies. Exceptions include Palepu (1985) who confined his sample to food-processing firms, and Porter (1974, 1976) who compared samples of convenience and non-convenience goods industries. If the possibility can be admitted that the relationship between diversity and performance can be industry- or environment-specific, then pooling of data is a vital issue that needs to be addressed.

More recently, Bettis and Mahajan (1985) found support for the hypothesis that *on a risk-adjusted basis* diversification categories should be performance neutral. Many low performers were found to be related diversifiers and different diversification strategies were associated with similar risk/return performance. However, since different industries conceivably present different levels of risk, adjusting for risk may be tantamount to adjusting for industry effects. The point is that in examining the diversity–performance relationship, it is very important to control for industry and/or risk effects. The possibility of other variables moderating the relationship must also be considered.

It should be noted, however, that none of the studies has been able to show conclusively that performance differences across diversification categories could be explained away on the basis of variables other than diversification category

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[2] Continued.
situation, while examining the relationship between diversity status and performance entails an equilibrium assumption, given a large enough sample. Metering the performance consequences of a diversifying move, whether it entails changes in direction or mode, is extremely problematic. In a large sample study there is no assurance that all the firms in the sample of diversifying firms will register a performance effect in say, 3, 4, or 5 years. The use of event studies and associated market measures may get around this problem, but any information asymmetries between a firm and the capital market will lead to erroneous valuation of the future benefits of the move. Thus, the tradition of using cross-sectional research designs focusing on diversity status may well prove to be a 'second-best' if not an ideal alternative. We are thankful to one of the referees for raising this issue and offering the above insights. A recent study that looks at the performance implications of both diversity status and changes in diversity over time (termed 'diversification') is the work of Grant, Jammine and Thomas (1988).

membership. This may have been due, in one way or other, to their authors' reliance on Rumelt's own original data base. In a recent study using current data Varadarajan and Ramanujam (1987) found that the basic robustness of Rumelt's findings is still intact, although it is necessary to temper his assertion of an absolute performance advantage for related diversification and of the performance penalty associated with unrelated diversification. This suggests that the management of diversity, rather than the type and mode of diversification, may be a more important factor determining performance. Fortunately, this issue has been receiving increasing attention recently.

In summary, the prospect for gaining new empirical insights by examining cross-sectional relationships between alternative measures of diversity and performance seems to be slim. This stream of research is at a point of diminishing returns. We need to begin to address the process and contextual issues in diversification, since the link between diversity and performance is likely to be moderated by a host of other factors. Difficult as they are to design and execute, longitudinal studies of diversification are a vital but unmet need in this stream of research, and must be attempted.

Implementation of diversification strategies

It is frequently asserted that strategy implementation, in general, has received less attention than strategy formulation in the strategic management literature. Certainly, that criticism takes on added piquancy in the case of strategic management research on corporate diversification. Only a handful of studies have directly examined the issue of *how* firms implement diversification strategies, and fewer still are studies that explore the performance consequences of different approaches to implementation. Some notable exceptions which focused on implementation issues are the studies of Dundas and Richardson (1982), Galbraith and Kazanjian (1986), Gupta and Govindarajan (1984), and Leontiades (1986b).

Part of the difficulty of pursuing such a line of research has to do with the elusive nature of diversification as a concept and the methodological demands imposed by it. Hence, clinical and longitudinal studies are apt to be required to address this task, and to shed any light on aspects of implementation that impact the diversity–performance relationship.

Nonetheless, several pieces of the picture are beginning to emerge. The commonly used tools or levers of implementation are structure, systems, and management style. The relationship between diversification strategy and structure has been the most frequently explored one. Chandler (1962), Scott (1973) and Rumelt (1974), as well as several others, have studied this topic. In subsequent studies, followers and extenders of Rumelt's (1974) work somehow dropped structure from consideration and became solely preoccupied with the direct effects of diversification on performance. Recently, however, a number of contingency-type studies that explore the consequences of the fit between diversification strategy and organization design have been reported (Donaldson, 1987; Hill and Hoskisson, 1987; Hoskisson, 1987; Kazanjian and Drazin, 1987).

Turning to the systems aspects, differences across diversification categories in the sizes of corporate staffs and in the systems used for performance appraisal, rewards, and transfer of managers from one division to another were first isolated by Berg (1973). In his earlier work, Berg had been concerned with the resource allocation and corporate–division conflict resolution problems of conglomerate companies, which he defined as companies consisting of a 'number of product divisions that sell different products principally to their own markets rather than to each other' (Berg, 1965: 80). Berg's (1973) research was later extended by Pitts (1976, 1977). Recent examples of work focusing on the compensation practices of diversified firms are the studies of Kerr (1985), Kerr and Slocum (1987) and Napier and Smith (1987). Leontiades and Tezel (1981) focused on the impact of diversity on corporate planning. Haspeslagh (1982) studied the use of portfolio planning and the difficulties involved in the actual implementation of this conceptually elegant framework for resource allocation within the modern diversified firm. Hamermesh's (1986) work represents a continuation of this vein of research. A notable study aimed at isolating the differences in the administrative practices of successful and unsuccessful unrelated firms is that of Dundas and Richardson (1982). A more limited exploration, conducted at the business-unit level, of the performance consquences of resource sharing (i.e. synergy promoting or exploiting) mechanisms has been accomplished by Gupta and Govindarajan (1986).

Lack of a common thread among these studies makes them difficult to integrate. They remain important fragments of evidence on the crucial, but only partially understood, role of implementation aspects in determining the performance consequences of different types and modes of diversification.

In summary, diversification research is just as vulnerable as the rest of strategic management research to the criticism of shying away from the real issues. We need a more daring approach that shows a willingness to wrestle with admittedly difficult process and context issues instead of continuing to be fixated on the more tractable but overworked content issues. In this vein it is appropriate to conclude this paper with a few comments on future research needs in this area.

DIRECTIONS FOR FUTURE RESEARCH

Clearly, an impressive volume of work has grown around the topic of diversification. Yet the findings of this vast body of research continue to be fragmentary and controversial. Some suggestions follow for future research on this mainstream topic in the strategy field.

Need for comparative clinical and process studies

A tradition of empirical cross-sectional studies has come to dominate the literature surveyed, although early research on diversification was characterized by a historical/clinical research paradigm. It is the opinion of the authors that there is a need to complement the present research approaches with clinical, process-oriented studies of diversification. This recommendation stems from the crucial importance of process issues in making diversification pay off, especially when it occurs through the acquisition mode (Haspeslagh and Jemison, 1987; Jemison and Sitkin, 1986a,b). This suggestion is not to be construed as a call for reversal to case studies. We are recommending small sample studies using a comparative research design in the belief that such studies will enable us to study the complex web of issues surrounding diversification, as well as make cautious generalizations applicable to clearly defined contexts. An example of such an approach is Scherer's (1984) comparative analysis of 15 mergers and acquisitions.

Need for a shift in level of analysis

There is also a need to shift the focus of analysis from overall profiles of firm diversity to individual diversification projects and cumulative diversification experiences. Some firms have undertaken numerous diversification projects—some successful, some not. Firms that are generally successful with their many diversification moves need to be identified and compared with firms whose diversification projects have been more often unsuccessful than successful (see Davidson, 1986). Interestingly, the literature has already begun to recognize that an important influence on diversification success is experience with previous diversification efforts (Bane and Neubauer, 1981). In these assessments it is further necessary to apply project-specific criteria of success in addition to overall measurements of firm performance, be they accounting-based or market-based.

In this sense an analogy with the new thrusts being made in research on new product management is useful. That literature has been criticized for its focus on individual new products as opposed to overall new product experiences at the firm level. However, some recent work (Booz, Allen and Hamilton, 1982) has focused on differences between companies that have been highly successful in launching new products (companies achieving greater than 90 percent success in all their new product introductions) and companies that have been relatively less successful (companies achieving less than 50 percent success in all their new product introductions). The study reports that important differences exist between these two categories of companies in the areas of operating philosophy, organization structures, experience with new product introductions, and management styles.

Need for integration across disciplines

The framework used in this paper for classifying research on corporate diversification clearly reveals the complexity of the topic and the many concepts, considerations, and linkages involved.

Hopefully, it will stimulate research on the less-explored aspects. Specifically, we need to learn more about the motives for, and implementation of, diversification as a strategy and to evaluate specific diversification projects, if possible using project-specific success criteria in addition to broad assessments using firm performance measures. The box labeled 'management of diversity—systems' is a relatively less researched area. While the importance of managerial attributes such as distinctive skills, top management experience, perceptions, biases, etc. have been recognized, the literature on diversification has generally stayed clear of such issues, with a few recent exceptions (e.g. Davidson, 1981; Lauenstein, 1985; Prahalad and Bettis, 1986; Song, 1982).

We recognize that no research can be designed that addresses all the concepts and linkages shown in our framework. Nevertheless, research conducted with a clear awareness of concepts and linkages excluded by conscious choice is more likely to be richer than ad-hoc examinations of narrowly circumscribed models tied to the disciplinary binds of a particular field. Such research is also likely to be easier to reconcile with past and future work. It might also be advisable to use a team approach in designing future research, wherein multidisciplinary teams, rather than independent research by single researchers, becomes the norm. Although they did not study diversification, Donaldson and Lorsch (1983) used this approach wherein financial and psychological perspectives were combined in order to better understand top management decision making.

CONCLUSION

This paper has provided an overview of research on corporate diversification from a multidisciplinary perspective, with a particular focus on the strategic management work in that area. A conceptual framework is offered for both categorizing the existing literature and to suggest areas for future research. An in-depth critique of the present research is presented, wherein five conceptual and methodological concerns are highlighted. Specific proposals are advanced for incorporation in future work.

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