Factors Influencing Divestment Decision-Making: Evidence from a Field Study

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SUMMARY

This research investigates factors which influenced the corporate-level divestment decisions of large, diversified firms. Field research, including interviews with corporate executives of 40 large diversified firms, provided the data to test propositions developed from various literature sources. In general, the findings from this research indicate that a business unit's strength, its relationship to other units in its firm, and its parent firm's financial position compared to its competitors are important divestment influences, while other factors such as general economic conditions are not. Some of our findings are consistent with conventional management wisdom; others are counterintuitive.
INTRODUCTION

Corporate divestment can be defined as a firm's decision to dispose of a significant portion of its assets. This research studied the factors which contributed to divestment decisions by large diversified firms. For our purposes, divestments consisted of whole business units or divisions of these firms.

Although there are many examples in the contemporary business press of corporate divestments involving significant financial losses for the divesting firms, there are also reports of divestments which produce profits for the divesting firms, even in the short term. Some firms have been able to make profitable divestments as the result of voluntary strategic choices. It is therefore important for researchers and managers to understand the factors influencing corporate divestment decision-making. This understanding should enable firms to manage their internal operations and influence their external environments so as to increase the probability that their divestments will be voluntary and profitable, rather than mandatory and financially unfavorable.

The assumption is frequently made that business unit unprofitability is the primary factor which prompts a firm's decision to divest. This research addresses the nature and strength of other decision-influencing factors as well. It provides evidence concerning the effects of certain economic, behavioral, and business portfolio factors on divestment decisions.

Personal interviews with executives of forty Fortune 500 firms provided the primary data for this research. In addition, published sources provided data on some of the research variables. Non-parametric statistical methods were used to test the research hypotheses.
RELATED LITERATURE

Several branches of management literature provided valuable insights during the formulation of this research. The relevant areas include those related to strategic decisions and the decision-making processes which produce them, life cycle theory and endgame strategies, stages of corporate development, corporate portfolio theory, and the limited prior work on corporate divestments. The most important contributions from these literatures provide the basis for this research and thus deserve our initial attention.

Strategic Decisions and Processes

A review of the management literature, and in particular of that related to business policy, indicates the prominence of strategy as a central organizing concept (Chandler, 1962; Ansoff, 1965; Andrews, 1971; Hofer and Schendel, 1978; Grant and King, 1982). In view of the proliferation of diversification as a strategy and divisionalization as a structure (Rumelt, 1974), the distinction between corporate-level and business-level strategies is especially relevant.* Corporate strategy, with its emphasis on managing the composition of and shifts in portfolios of businesses, is the focus of this research.

From the earlier development of the concept of strategy, research emphasis shifted to the process of managing strategy in organizations (Ansoff, DeClerck and Hayes, 1976; Schendel and Hofer, 1979). We have

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*Business-level strategy addresses the question of how to compete in a business, while corporate strategy focuses on which businesses to compete in and on how to integrate them at the corporate level (Schendel and Hofer, 1979:12).
focused this research on those phases of the strategic management process involving the choice of strategy (and the process of making those decisions) and have largely excluded decisions regarding implementation, monitoring, and evaluation of such strategic decisions. At the present stage of research on the divestment topic, it seems important to improve our understanding of and base for evaluation of the strategic choices being made before proceeding to study the implementation of and results of those choices.

Life Cycles and Related Concepts

The concept of life cycles has been addressed by many researchers in its application to the management of particular products, product lines and industries over time. More recently, product life cycle notions are being extended to a broader theory of market evolution, shifting the focus from particular products to markets for generic needs (Biggadike, 1981). In addition to being useful for the study and management of products and industries, the life cycle concept has been applied to firms (James, 1974). Although there is some difficulty applying this notion to highly diversified firms with many products at different life cycle stages and determining an overall corporate stage, it emphasizes the potential usefulness of product life cycle considerations in managing shifts in corporate portfolios of diverse businesses.

Research efforts somewhat related to life cycle concepts include Schendel and Patton's (1976) work on turnaround strategies and Harrigan's (1979) work on endgame strategies. Schendel and Patton
conclude that extremely poor performance, sharply declining stagnation, is needed to "spur (the firm) to action" (1976:240). We can extend this to the hypothesis that very poor performance could influence a firm toward divestment. Secondly, they suggest that turnaround of firms in decline “usually requires substantial changes in the business” (1976:240); divestment of a division or business unit is one such substantial change.

Harrigan (1979) offers alternative “endgame strategies” for the profitable management of decline-phase businesses and supports the need for more systematic use of divestment as well as of other endgame alternatives. She considers which strategies are appropriate for different firms' situations. That some firms can proactively choose and implement those appropriate strategies while others cannot suggests that other factors are influencing the endgame (including divestment) choice process in firms.

Stages of Corporate Development

Thain (1969), Salter (1970), Scott (1971, 1973), Grant (1972), and Greiner (1972) have proposed that corporations develop over time through a series of stages. The contribution of the stages of corporate development literature to this research lies in its guidelines for later-stage firms; this research is concerned with divestment of divisions or other whole business units, thus it focusses on large, diversified, divisionalized (“Stage III”) firms. Characterization of "Stage III" firms as having each division in competition (with other divisions) for resources suggests that interdependency among businesses
of a firm may influence the firm's strategic choices regarding investment or divestment of various businesses. Similarly, performance measurement of individuals in most Stage III companies is based on external market criteria such as return on investment and market share and control of organizational sub-units is based on analyses of financial results, suggesting that assessment of units' performance versus their plans may influence divestment decisions of such firms.

Corporate Portfolio Theory

Building on the finance theory literature, researchers have been developing theories about the design and management of corporate portfolios of businesses. Particular attention has been given to individual aspects of corporate portfolio building and dismantling, such as diversification, acquisition, and divestment. Traditionally, both researchers and corporate managers have placed significantly greater emphasis on the expansion or acquisition aspects of corporate business portfolio management. As corporate portfolio management activity has shifted from the acquisition trends of the late 1960's to greater frequency of divestment in the mid-1970's, research emphasis has begun to follow.

The stream of research to which Wrigley (1970) and Rumelt (1974) were important contributors suggests that classification schemes based on strategies of diversification offer useful insights into the management of firms' shifts in their diversified portfolios of businesses. The writings of Williamson (1975) and Dundas and Richardson (1980) suggest to us that using degree and type of relatedness among business
units as a research basis for grouping firms may explain some differences in the strategic management of corporate business portfolios.

The work of these researchers suggests that management of firms differs according to the kind of "market failures" the firms are attempting to bridge.

Research on acquisition's role in corporate portfolio theory has also contributed to the conceptual foundation of our research on divestment. Kitching's (1967) study of merger and acquisition strategies suggests that the kind of relatedness which vertical and horizontal acquisitions creates among units of firms may influence those firms' divestment decisions. Salter and Weinhold (1979) describe the benefits to be realized from an organization's unrelated diversifying acquisitions as primarily financial in nature, such as growth in total firm profits by cross-subsidization of businesses (1979:145). This suggests that financial considerations, such as units' continued ability to contribute to firms' total profits and thus to that cross-subsidization, may be an important influence on firms' decisions to divest unrelated units. The same factor may influence decisions of firms pursuing financial rather than operating strategic relationships to divest low-profit units. Eliasson (1976) discusses the impact of "tradition" on firms' planning activities and on their failures to leave long-established markets. This suggests that factors such as relationships between units of firms and those firms' historical businesses may be important influences on the firms' divestment decisions, as would be relationships between decision-makers and the established businesses of those firms.
Divestment Literature

Empirical research on corporate divestment of businesses is quite limited. Prior research from which this study extends includes Gilmour's (1973) thesis, Porter's (1976) work on exit barriers, Patton and Duhaime's (1978) survey of divestment activity of large industrial firms, and Nees' (1981) study of managers' roles in divestment. These previous studies suggest that various behavioral, structural and economic factors also influence divestment decision-making, thus providing a basis for additional hypotheses in this research.

Gilmour's (1973) research suggests that behavioral factors are important influences on the divestment decision process. Studying major divestment decisions in three medium to very large firms, he found that a change or replacement of top management personnel preceded the firm's decision to divest in each case he examined. That top management replacement was a common factor in otherwise different situations suggests that top management's psychological distance or detachment from divestment candidate units is a necessary condition for firms to be willing to divest and thus for firms to make proactive use of the divestment option. Nees' (1981) work lends further support to the notion that behavioral factors are key influences on divestment decision-making. Her study of division managers' roles in fourteen divestments concludes that the divestment process is improved by inclusion of the division manager; implicit is the assumption that top managers have the detachment Gilmour found necessary for them to initiate the divestment decision process.
Porter (1976) asked why some businesses earning "chronically insufficient" returns are not divested by their parent firms, and suggested that "barriers to exit" stand in the way of some divestment decisions. Using PIMS data, Porter tested for the presence of structural or economic, corporate strategy, and managerial barriers, and found such exit barrier measures to be important predictors of non-divestment of unprofitable businesses.

Patton and Duhaime (1978) surveyed large industrial corporations to assess their recent divestment activity. Studying both firms' attitudes toward the divestment option and the details of those firms' actual recent divestments, they focused on the organizational decision-making process and on changing motivations for corporate use of the divestment option. Discrepancies were found between stated intentions of firms and those firms' reported actions. Many firms claimed a proactive attitude toward divestment but exhibited defensive actions with respect to use of divestment; this suggests that other factors are preventing firms from behaving as proactively and systematically as they are thinking. The Patton and Duhaime results suggest hypotheses for this research. For example, divested units' positions relative to their firms' performance suggests that unit strength is an influencing factor. The fact that so many divested units have deteriorated to unprofitability, together with the fact that lower level managers so often had no involvement in divestment decisions despite the degree of decentralization of their firms, suggests that personal attachments to units may influence divestment decision-making, preventing earlier, more timely decisions.
Several handbooks on divestment have been written to guide managers through implementation of divestment decisions (Lovejoy, 1971; Vignola, 1974; Bing, 1978); these served to articulate some of the "conventional management wisdom" underlying some hypotheses of this research. Vignola's writing, based in part on field research, supports the popular notion that the performance (generally, the unfavorable performance) of firms' units is the primary factor in the divestment decisions of firms. Examples of profitable unit divestments, however, suggest that in at least some situations the "unit performance" factor is dominated by other influences on the divestment decision process. Vignola also discusses what he calls the "product line delineation problem" for divestment, suggesting the importance of interdependency as a factor in divestment decisions. The role of corporate financial position as a factor in divestment decisions is supported by Lovejoy. He suggests that the desperate need for cash to avoid bankruptcy is a motive for some firms to divest profitable parts of those firms.

RESEARCH VARIABLES, HYPOTHESES AND METHODS

Research questions addressed by this study include:

- Are there significant differences among business units chosen for divestment with respect to the financial conditions of those units? With respect to the units' competitive positions?

- How do firms' financial positions and conditions in the general economic environment affect decisions to divest business units?

- Do firms divest units which are highly interdependent with other firm units, and, if so, under what conditions?
- How do historical commitments of divestment decision-makers to particular units affect decisions to divest those units?

Variables

The objective of the research was to study the effects of various factors hypothesized to be important influences on the divestment decisions of large, diversified firms. Based on a review of the research literature, the many articles appearing in the contemporary business press, and our past research on divestment, the following factors were hypothesized to be individually important influences on the divestment decisions of such firms:

1) financial strength of the firm,
2) competitive and economic strength of the unit,
3) interdependencies among the unit and the firm's other businesses,
4) general economic environment in which firm and unit are operating, and
5) attachment between unit and divestment decision-maker.

The above factors are included in the following hypotheses which in turn are summarized in Figure 1.

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Hypotheses*

H1: Financial positions of divesting firms will differ significantly and unfavorably from financial positions of their competitor groups.
   H1A: ROE in the year preceding a divestment decision will be lower for divesting firms than for the average of their competitor groups.

H2: Recent financial positions of divesting firms will differ significantly and unfavorably from prior financial positions of those firms.
   H2A: ROE for the year preceding a divestment decision will be lower than ROE averaged for the three prior years.
   H2B: Debt/equity ratio for the year preceding a divestment decision will be higher than debt/equity ratio averaged for the three prior years.
   H2C: Dividends paid as a percent of earnings for the year preceding a divestment decision will be lower than dividends paid as a percent of earnings averaged for the three prior years.

H3: Divested units will be characterized by low financial strength.
   H3A: In the year before the divestment decision, performance of divested units will be less satisfactory than performance of firms' other units.
   H3B: In the three years before the divestment decision, actual performance will be less than planned performance.
   H3C: In the year before the divestment decision, performance expected from divested units will be less satisfactory than performance expected from firms' alternative resource uses.
   H3D: Profit growth rates of divested units will compare unfavorably to those of their firms.
   H3E: Contributions of divested units to firm profits will be at unacceptably low (or negative) levels.

H4: Divested units will exhibit certain characteristics associated with lack of strength.
   H4A: Sales growth rates of divested units will compare unfavorably to those of their firms.
   H4B: Projected resource needs of divested units will be unacceptably high.
   H4C: Divested units will be minor factors in their industries rather than major competitors.
   H4D: Divested units will be less autonomous than other units of firms.

*These hypotheses address the direct relationships between individual factors and decisions to divest. In addition, a number of hypotheses about relationships among the factors were tested but are not within the focus of this article. Those results, available in Duhaime (1981), were generally not statistically significant.
H5: Divested units will be characterized by low interdependency with other units of the firms.

H5A: Divested units will be characterized by low transfer of technology to other units of their firms.

H5B: Divested units will be characterized by a low proportion of plant and equipment shared with other units of their firms.

H5C: Divested units will be characterized by a low proportion of sales to customers of their firms' other units.

H5D: Divested units will be characterized by a low proportion of interfirm sales.

H5E: Divested units will be characterized by a low proportion of interfirm purchases.

H6: Decisions to divest units are usually made in contraction rather than expansion phases of the general economic cycle.

H7: Divested units will be characterized by low managerial attachment.

Methodology

Field research methods, using personal interviewing, were appropriate for this study for several reasons. Little is published or available in public records about the details of firms' divestment decision processes. Divestment is a highly sensitive and confidential topic for most firms because of its historical association with failure and the fact that it reflects firms' strategic choices and might be used as an indicator of future strategic directions. More generally, the exploratory stage of divestment research made the breadth and richness of information available through field study very desirable. Data on some variables, such as "firm financial strength" and "general economic environment growth," were collected from public sources, but most data were obtained through personal interviews.

Semi-structured personal interviews were conducted by the researcher with persons familiar with recent divestment decisions and factors influencing them in forty (40) "Fortune 500" firms. Actual divestments
of business units made by the firms (or in progress) were discussed, focusing on the divestment decision-making process and on factors influencing that process. Interviewees' positions ranged from Manager to President, but most were Vice Presidents, generally of Planning or Corporate Development. A seventy-five item questionnaire was completed by the researcher for each interviewee during and immediately after the interview.

The primary criteria for selection of firms for the research sample were size, geographical location, divestment activity, and divestment discretion. More specifically, firms were included in the sample if they:

1) were among the 1979 "Fortune 500" Industrials (thus a large, industrial, U.S.-based corporation) and were diversified and divisionalized (thus comprised of distinguishable business units);

2) were headquartered in or near Chicago, Cleveland, New York City or Pittsburgh (thus accessible for personal interviews within the financial constraints of the research);

3) had divested at least one business unit during the period 1975-1980 which was considered significant by the firm and which was at the firm's discretion (not ordered by anti-trust litigation).

Although financial constraints and the use of personal interviewing limited the sample geographically, that limitation did not seem to seriously bias the research results. Firms headquartered in those four cities constitute 20% of the 1979 "Fortune 500." A potential sample of seventy-five firms met the research criteria of size, geographical
location, and recent divestment activity. Of those, forty firms agreed to participate and were able to do so within the time frame for this project.

Although efforts were made to minimize biases and other adverse effects stemming from the choice of research methods, some limitations are inherent in every available choice. Reliance on firms themselves for information may sacrifice some standardization available from required public disclosure documents, yet such an approach is necessary when the appropriate information is not publicly available, as in the case of variables such as "unit strength." Personal interviewing inevitably has some limitations as a data collection method. The most important of these are researcher bias, time distortion, interviewee bias, and the high financial and time cost of collecting data. Standardizing the interviews across the sample (as much as possible while maintaining the semi-structured approach appropriate to the organizational level interviewed) served to minimize researcher bias. Time distortion problems were reduced by selecting for discussion that divestment (from among those the firm had made in the time period) with which the interviewee felt most familiar. Interviewee bias was at least partially controlled by questions posed as probes during the interview; the opportunity to interject probes is an important advantage of the interview method.

Nonparametric statistical methods were used in testing the hypotheses of this study. In addition, qualitative analysis of the interview data was undertaken. The rich data base, consisting of first-hand, in-depth descriptions given by forty corporate executives of their
important strategic decisions and the influences on those decisions, is an important asset of this research. Conclusions drawn from this research are strengthened by the fact that data were collected through personal interviews with high-level executives of these large firms, for previous research has indicated that it is at those upper management levels that divestment decisions are made (Gilmour, 1973; Patton and Duhaime, 1978).

RESULTS

Two types of results from this research have been developed. Statistical tests of the hypotheses are emphasized here; findings obtained from qualitative analysis of the interview data will be developed more fully in future articles. The research results suggest that strong relationships exist between divestment decision-making and several of the factors hypothesized to influence those decisions. For other factors, the relationship is weak, and, for a few cases, the relationship is in the direction opposite that hypothesized. As many of the hypotheses are consistent with both conventional management wisdom and related literature, these are interesting and somewhat provocative results. Table 1 summarizes the hypotheses and the primary results.

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**Firm Financial Strength (H1, H2)**

The study hypothesized that divestment decisions would be made in situations of low firm financial strength rather than high.* It is

*The bases for classifying firms and units as "high" or "low" on each variable are explained in the Appendix.
reasonable to expect that firm-level financial considerations would affect firms' discretion in making divestment decisions. Published statistics of firms' financial positions and performance are available to stockholders and creditors of firms as indicators of firms' financial strength or weakness. Pressure on firms to divest can result when these statistics are unfavorable relative to the firms' own past performance, to competitors' current performance, or to conditions in the general economy.

This research, studying large, publicly-held firms, used statistics from Standard and Poor's Industry Surveys to test these hypotheses. The measures of firm financial strength selected for use in this research were:

1) return on equity (ROE)
2) debt/equity ratio (DE), and
3) dividends paid as a percent of earnings (DIVPAY).

Results. Firm financial strength by comparison to industry average appears to be a strong influence on divestment decision-making (H1). The research results give strong support to the hypothesis that divestment decisions tend to be made when firm financial strength, as measured by ROE, is low by comparison to industry financial strength.*

*The "industry financial strength" to which a particular firm's financial strength is compared is calculated as follows. The industry and industry sub-group (e.g., Automobiles--Original Equipment Manufacturers) in which the firm is classified in Standard and Poors Industry Surveys is identified. The subgroup's average return on equity (ROE), not including the firm, is calculated for the year before the firm's divestment decision. This industry average is then compared to the firm's ROE for the same year.
Nearly three-quarters of the decisions to divest units were made at times when the ROE of the divesting firms compared unfavorably with those of their industries ($X^2 = 12.789, \alpha = .001$).

It is somewhat surprising, however, to find that firm financial strength judged by other traditional measures is not significantly related to divestment decisions ($H_2$), despite the hypotheses' strong base in conventional management wisdom. Firm financial strength (firm's present record compared to its own prior record) was tested in three parts, using as measures: a) return on equity (ROE), b) debt/equity ratio (DE), and c) dividends paid as a percent of earnings (DIVPAY). Data from Standard & Poor's Industry Surveys did not show a significant majority of firms' financial positions to be low at the time of divestment using any of these measures. In fact, a slight majority of the divestments studied were decided under conditions of high firm financial strength (relative to firms' prior records), although that higher frequency was not statistically significant.

A composite measure, "OVERALL FIRM FINANCIAL STRENGTH-INTERVIEW," is drawn from the interview data, specifically items dealing with firms' debt/equity, dividend policy and stock price positions, availability of firms' resources for unit and other needs, and probable conditions for non-divestment decisions. The frequency of "low" overall firm financial strength in the research sample was greater than that of "high," as hypothesized. However, the difference was not statistically significant.
Summarizing, we can say that the research supports the idea that a relation exists between divestment decisions and low financial strength of firms in comparison to their industry groups, but does not support the existence of a relation between divestment decisions and financial strength of firms in comparison to their own prior records.

Unit Strength (H3, H4)

The strength of business units of firms has been hypothesized to be related to firms' decisions to divest those units. We expected that divested units would be characterized by low unit strength rather than high. Unit strength has two facets of interest in this research: financial strength and competitive strength. Firms' managers' assessments of units' competitive positions and of their performance compared to that of other units, to that planned, and to that of alternative resource resource uses, were collected in the research interviews and used as measures of unit strength.

Results. Unit strength was found to be strongly related to divestment decision-making. Both unit competitive strength and unit financial strength, except when measured by units' actual versus planned performance, showed statistically significant results that decisions are associated with low strength units.* That divested unit strength was low was clearly an expected result of this study; the contribution of this research with respect to this variable is in refining our definition of "low unit strength." Rather than being limited to the traditional definition of low strength as lack of profitability, this study

\[ \chi^2 = 28.49, \alpha = .001; \text{ binomial test, } \alpha = .0002; \text{ respectively.} \]
differentiated among a number of unit strength measures and tested the relation of each to divestment decision-making.

Comparing divested unit performance to that of their firms' other units, only 7% of divested units were said to "perform better than most other units," while more than three-quarters were described as performing worse than most. The distribution of divested units' performance compared to that expected from firms' alternative resource uses was as hypothesized. As might be expected because divestments forced by government regulation were excluded from this research, there were no instances of units divested whose performance was better than that expected from alternatives; the frequency of "unit worse than alternatives" was much greater than that of "unit same as alternatives."

Similarly, profit growth rates of the divested units generally compared unfavorably to those of their firms, as did the units' sales growth rates. Divested units' contributions to their firms' profitability at the time of the divestment decision were characterized in only 16% of the cases as acceptable; 40% of the units were sustaining losses, and 44% were profitable, but at unacceptably low levels.

Divested units' projected resource needs provide a firm-specific measure of unit strength. That is, a unit might require greater future resources than its parent firm is positioned to provide, and thus be perceived within that firm as a low strength unit. The same unit in a cash-rich firm might be perceived more favorably. More than three-quarters of the divested units studied were "low strength" by the resource needs measure (that is, their projected resource needs were unacceptably high for their parent firms).
Unit competitive strength, indicated by firms' managers' assessments of divested units' positions as major or minor factors in their industries, was similarly found to be low, as hypothesized. More than three-quarters of the units were characterized as minor competitors in their industries.

Divested units were seldom described as less autonomous than firms' other units, and 40% of divested units were said to be more autonomous than firms' other units. Perhaps this result could be expected since more than 25% of the sample units were described as being "too small" relative to the firm. As a result, they were felt to require a disproportionately large commitment of top management time if they were to be retained in the firm's portfolio of businesses.

Unit Interdependency (H5)

Certain characteristics of firms and their units have been suggested in the literature as creating barriers to exit (through highly interdependent relationships among units). Interdependencies between divestment candidate units and firms' other business units were therefore hypothesized to be influences on firms' decisions to divest those units. The personal interviews with firms' managers provided data to test our hypotheses about interdependency.

Results. The data strongly supported our hypotheses that divested units are likely to show little interdependency with their firms' other units ($X^2 = 7.47, \alpha = .01$), consistent with Porter's work on exit barriers (1976). We expected that high levels of sharing of technology, facilities, and customers among units of firms would act as barriers to
firms' exits from those units. We therefore hypothesized that divested units would be characterized by little or no sharing of technology with their firms' other units (more than 90% of the studied units were so described), a low proportion of plant and equipment shared with other units (nearly 90% of our units shared less than 10% of their P&E), and a low proportion of their sales to customers of their firms' other units (again, nearly 90% of the units were classified as "low," having less than 25% of their sales to shared customers). Interfirm purchases and interfirm sales, other barriers to exit suggested by Porter, were found in less than 25% of the studied units, and represented a large proportion of the unit's transactions in less than 5% of our cases.

Thus, using a number of measures of unit interdependency, divested units were generally found to have little interdependency with their firms' other units. This has important implications for corporate acquisition decision-making and for business portfolio composition.

In addition, a number of hypotheses were tested in an attempt to explain why firms which do divest high interdependency units and high strength units might choose to divest such units.* It is interesting that of the various hypotheses which attempted to explain high strength and high interdependency divestments in terms of the other variables of this study, none were supported by the data. This lends indirect support to other "strategic" explanations the interviewees gave for such divestments.

*See Duhaime (1981) for a full discussion of these hypotheses and their results.
General Economic Environment Growth (H6)

The "general economic environment growth" variable reflects the general external economic conditions within which the firm and its units were operating at the time of divestment. General economic conditions affect firms' decision-making through differences in availability and cost of credit, demand for goods and services, and resulting price levels for raw materials and finished goods. At the extreme (severe recession or depression), this variable alone could force a divestment decision (divestment as a form of financing). We expected that divestment decisions would be made in contraction rather than expansion phases of the general economic cycle. General economic conditions at the time of each divestment decision were classified by the researcher as expansion or contraction according to guidelines of the National Bureau of Economic Research (NBER), widely used for differentiating economic cycle stages.

Results. The data do not support the hypothesis that divestment decision-making is related to economic cycle phase. Using both the chi-square and the Kolmogorov-Smirnov test, no significant differences in divestment decision frequency are found among the economic cycle phases.

A limitation of the chosen research methodology is obvious here: we can draw conclusions about timing of divestment decisions only on the basis of decisions to divest. A better test of this hypothesis would include all divestment decision-making activity within a firm over the 1975-1980 period and observe the relative proportion of
"divest" and "don't divest" decisions in the various economic cycle stages; this was not possible within the confines of the current research. Further, we suspect that participant cooperation would, for confidentiality reasons, be very difficult to obtain for a study which included business units once considered for divestment but still part of firms' portfolios.

Managerial Attachment (H7)

The "managerial attachment" variable measures the degree and nature of relationships between divestment decision-makers and business units which are divestment candidates. The greater the involvement with a unit and attachment to a unit which senior managers have, the less likely it is that those managers will be able to objectively consider that unit's divestment. We expected, therefore, that divested units would be characterized by low levels of managerial attachment.

Measurement of this variable is unit-specific: the managerial attachment of research interest is that to a particular unit under consideration for divestment. The manager whose attachment to that unit is of most interest is the Chief Executive Officer (CEO).* The personal interviews with firms' managers provided data to test our hypotheses about managerial attachment.

*Some reasons for choice of CEO as subject of the managerial attachment measure are: 1) divestment of whole business units is a corporate-level strategic decision appropriate for that position; 2) Gilmour's research (1973) found divestment decision-making to be located at uppermost management levels (executive vice-president to Board of Directors, depending on size of firm and attachment of the CEO); 3) Allen's research (1979) found CEO tenure to be a significant influence on organizational restructuring decisions, which are related at least indirectly to divestment decisions.
Results. The research results do not offer significant support for the hypothesis that divested units are characterized by low managerial attachment. Although the frequency of "low" managerial attachment to divested units is greater than that of "high" managerial attachment, using the chi-square statistic we conclude that the observed difference is not significant.

DISCUSSION

The research results offer strong support for some of the original hypothesized influences on decisions to divest business units, indicating that those factors are indeed related in the hypothesized direction to those decisions. Unit strength and unit interdependency are two such influences. We hypothesized that units which firms decided to divest were likely to be low strength, similarly that those units were likely to have low interdependency with their firms' other units; those hypotheses found strong support in the data.

Firm financial strength was hypothesized to influence divestment decision-making; a number of measures of firm financial strength were used, with mixed results. The data showed that divestment decisions were generally made when firms' performance levels were below those of their industries. Based on this result and on interviewees' supporting comments, together with the concern interviewees spoke of regarding firms' stock prices and price/earnings multiples being lower than their competitors', we conclude that firms' comparisons of themselves with their competitors is an important influence on their decisions to divest business units. Tests comparing firms' performance to their own prior
performance all showed distributions with more "high-strength" than "low-strength" incidents, although the results were not statistically significant. We can speculate that some firms delay divestment decisions, especially those involving "low strength" units which may mean a selling loss for the firm, until a "good" year (high firm financial strength), when the firm can better afford to take that divestment loss. This would be consistent with firms' concerns about the effects of their actions (including divestment) on their stock prices.

Our hypothesis that divestment decisions would generally be made not in economic expansion but in economic contraction was not supported by the data; the distribution was in the direction opposite that hypothesized, but the difference was not statistically significant. Additional insights were gained from interviewees' comments: they characterized stages of the economic cycle as short-term conditions, not the basis for long-term decisions such as divestment and other portfolio shifts. It is interesting to note that some of the divestment decisions made during economic contraction involved high strength, low interdependency units; the high price of funds (because of economic conditions) for alternative resource uses influenced firms to divest those low interdependency units although they were still profitable.

Our hypothesis that decisions to divest would usually involve units to which managerial attachment was low was only weakly supported. More instances of low managerial attachment than high were reported, but the difference was not statistically significant. There are several possible explanations for the weak results on the managerial attachment variable. Although managerial attachment has support in the literature as a
barrier to divestment, it is not presumed to be a permanent or impene-
trable barrier; eventually other pressures (such as low firm financial
strength or poor unit performance) arise in a unit's situation which
either override high levels of managerial attachment or force replace-
ment of the manager in question, thus changing the level of managerial
attachment. That a unit had little interdependency with the firm's
other units, on the other hand, would probably not be enough to over-
come managerial attachment and result in a divestment decision.

The research findings are important for management policymakers.
To the extent that managers can improve their understanding of the
influences on others' past divestment decisions and can increase
their awareness of the divestment-influencing factors, they may be
better able to assess the presence of those factors in their own
management arenas. They could then take positive steps, through
informal awareness or through formal management systems, to protect
against any detrimental effects those factors might have on their
decision-making processes.

More specifically, the influence that some of the above factors
were reported to have on divestment decisions indicate that it would be
appropriate for managers to explicitly consider those factors in the
design of their formal management systems. The research results also
suggest that firms should (especially at the time of acquisition con-
sideration) explicitly recognize the tradeoff between the benefits of
interdependencies and the undesirable effects of greater cyclicality in
those portfolios. By systematically including that tradeoff in their
acquisition considerations, firms would be able to achieve a better
balance between those elements rather than having to later correct to such a balance.

This study's contribution to the advancement of research on corporate business portfolio management is significant. Empirical research on corporate divestment has been very limited; the relatively large scale of our investigation and the diversity of divesting firms and divested units studied broadens the base for future research. The hypothesized influencing factors were supported by conventional management wisdom; this research was the first effort to systematically confirm (and, as in the case of firm financial strength by comparison to prior strength, fail to confirm) those factors' influences on the divestment decision-making process over a broad cross-section of divestment instances.

The prominence of acquisition-related issues in the interview discussions has important implications for policy researchers. It appears that more cooperation and coordination of these two research streams is appropriate. Although research has been more extensive on acquisitions than on divestments, additional study in the area of acquisitions is needed, specifically on the formulation rather than implementation of appropriate acquisition strategies. The results of this study indicate that many divested units (subsequently falling into our "low unit strength" and "low interdependency" categories) should not have been acquired by their parent firms.

CONCLUSION

The purpose of this research has been to improve our understanding of firms' decisions to divest business units of themselves. Certain
factors were hypothesized to be the major determinants of divestment decisions; three of these were found to be significant: unit strength, unit interdependency, and firm financial strength relative to industry averages (see Figure 2). Other important insights about the divestment decision process were gained through use of personal interviewing as the data collection method.

The subject of this research is critically important to corporate managers, as evidenced by the relatively high response rate (willingness to participate) we obtained on this sensitive and confidential topic. With greater knowledge of divestment-influencing factors, firms can design their management systems to better manage the divestment option.

Many fruitful directions for future research are suggested by our findings. First, now that this research has identified important individually influencing factors, further study of those factors should determine their relative impacts on the divestment decision process. Also, research samples could be selected focusing on combinations of those factors to study their interrelationships. This promises to be a fruitful area for research. This study focused on individual instances of divestment by firms; it necessarily excluded, therefore, study of the influence which firms' patterns of divestment, acquisition and portfolio construction activities might have on those firms' subsequent divestment decisions, another promising area for future research. As noted earlier, future research efforts including units not divested by
firms would probably be useful, despite the difficulty of arranging such a study.

Finally, and perhaps most importantly, the link between divestment decision-making, divestment decision implementation, and firm performance promises to be a fertile and important area for future research efforts. Empirically-developed prescriptions for corporate managers resulting from such research would be of great value.
REFERENCES


D/106
Hypothesized Direct Relationships of Influencing Variables and Divestment Decisions

H1, H2: FIRM FINANCIAL STRENGTH (low, high)

H3, H4: UNIT STRENGTH (low, high)

H5: UNIT INTERDEPENDENCY (low, high)

H6: GENERAL ECONOMIC GROWTH (contraction, expansion)

H7: MANAGERIAL ATTACHMENT (low, high)

*Note: H1 and related designations refer to the hypotheses developed for the research.
Figure 2

Resulting Direct Relationships of Influencing Variables and Divestment Decisions*

H1:
FIRM FINANCIAL STRENGTH
(firm ROE below industry's average ROE,
firm ROE at/above industry's average ROE)

H3, H4:
UNIT STRENGTH
(low, high)

H5:
UNIT INTERDEPENDENCY
(low, high)

DECISION TO DIVEST

*Significance levels shown in parentheses.
Table 1
Summary of Results of Hypothesis Testing

Significant Support

H1: Financial positions of divesting firms will differ significantly and unfavorably from financial positions of their competitor groups.

Results: Supported at the $a = .001$ level.

H3: Divested units will be characterized by low financial strength.

Results: Supported at the $a = .001$ level. Distributions using different measures of unit financial strength were all in the hypothesized direction; all but unit performance compared to its planned performance were significant at the $a = .01$ or $a = .001$ levels.

H4: Divested units will exhibit certain characteristics associated with lack of strength.

Results: Supported at the $a = .001$ level. Distributions of units' sales growth rates, projected resource needs, and competitive strength were all in the hypothesized direction. Distribution of units' autonomy was in the direction opposite hypothesized.

H5: Divested units will be characterized by low interdependency with other units of the firms.

Results: Supported at the $a = .01$ level. Distributions of units' shared technology, shared facilities, shared customers, interfirm sales, and interfirm purchases were all in the hypothesized direction, and were significant at the $a = .001$ level.

Weak Support

H7: Divested units will be characterized by low managerial attachment.

Results: Distribution was in the hypothesized direction, but not significant.

Mixed Results

H2: Recent financial positions of divesting firms will differ significantly and unfavorably from prior financial positions of those firms.

Results: Distributions of firm financial strength measured by return on equity, debt/equity ratio, and dividends paid as a percent of earnings all were in the direction opposite hypothesized, but not significant.

H6: Decisions to divest units are usually made in contraction rather than expansion phases of the general economic cycle.

Results: Distribution was in the direction opposite hypothesized, but not significant.
Appendix

Classification of Factors as High/Low

Firm Financial Strength

Return on equity (ROE) versus prior ROE was HIGH strength if the firm's ROE in the year preceding the divestment decision was greater than or equal to its average ROE for the three prior years, LOW strength otherwise.

Debt/equity ratio (DE) versus prior DE was HIGH strength if the firm's DE in the year preceding the divestment decision was less than or equal to its average DE for the three prior years, LOW strength otherwise.

Dividends paid as a percent of earnings (DIVPAY) versus prior DIVPAY was HIGH strength if the firm's DIVPAY in the year preceding the divestment decision was less than or equal to its average DIVPAY for the three prior years, LOW strength otherwise.

Return on equity (ROE) versus industry's average ROE was HIGH strength if the firm's ROE in the year preceding the divestment decision was greater than or equal to its industry's average ROE, LOW strength otherwise.

Overall firm financial strength (public) was based on firm's four measures above. Overall strength was HIGH if three or more measures were HIGH and LOW if three or more measures were LOW. The remaining cases were classified as HIGH or LOW by examining directions of trends in the four-year data on the various measures.

Overall firm financial strength (interview) was based on interview data about firms' debt/equity, dividend policy and stock price positions, availability of firms' resources for unit and other needs, and probable conditions for non-divestment decisions. The researcher's judgment was used to classify firms as HIGH or LOW using that data.

Unit Strength

Unit financial strength was classified as HIGH or LOW based on measures of unit performance compared to performance of firms' other units (HIGH if unit about average or better than most), unit performance compared to planned performance (HIGH if on plan or better than plan), unit performance compared to performance expected from firms' alternative resource uses (HIGH if unit same as or better than alternatives), unit profit growth rates compared to those of their firms (HIGH if unit same as or better than firm), unit contribution to firm profit (HIGH if acceptable profit contribution), unit sales growth rates compared to those of their firms (HIGH if unit same as or better than firm), and projected resource needs of units (HIGH if acceptable to firm). In a
Appendix (continued)

limited number of cases, these various measures gave conflicting signals about unit financial strength, in which cases the researcher's judgment was exercised in classifying those cases as HIGH or LOW.

Unit competitive strength was HIGH if the unit was a major competitor in its market, LOW otherwise (based on interview data).

Overall unit strength was based on units' financial strength and competitive strength measures, with financial strength dominating.

**Unit Interdependency**

Overall unit interdependency was classified as HIGH or LOW based on measures of shared technology (HIGH if more than little or none was shared), shared plant and equipment (HIGH if 10% or more was shared), unit's sales to shared customers (HIGH if 25% or more of unit's sales), interfirm purchases (HIGH if more than little or none), interfirm sales (HIGH if more than little or none), and presence or absence of a vertical integration relationship between the unit and others in the firm. Unlike the multiple measures of unit financial strength, the measures of unit interdependency are not required to move together for the HIGH/LOW classification and, in fact, generally do not. Following Porter, we say that any of the above conditions indicate HIGH (overall) interdependency.

**General Economic Environment Growth**

General economic environment growth was classified as EXPANSION if the unit's divestment decision year was one of upturn to expansion or full expansion according to the National Bureau of Economic Research, CONTRACTION otherwise.

**Managerial Attachment**

Managerial attachment was classified as HIGH or LOW based on measures of the divestment decision-maker's past responsibility for the unit (HIGH attachment if "yes"), the importance of the unit to the divestment decision-maker (HIGH attachment if unit represented a significant proportion of the decision-maker's responsibility), the CEO's relation to the unit (HIGH if CEO was involved in the unit's acquisition or development), and CEO's tenure in the CEO position, in the firm, in the unit, and in the unit's business (HIGH if more than two years in the position or the unit, more than five years in the firm or the unit's business). In some cases, these various measures gave conflicting indications of managerial attachment; then researcher judgment was exercised. The factors were not equally weighted; for example, if the CEO's relation to the unit was that he was directly responsible for the unit's acquisition, managerial attachment was classified as HIGH regardless of what indications the other measures gave.