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## التوثيق الالكتروني والميكروفيلم



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بالرسالة صفحات

لم ترد بالأصل



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**THE INCREMENTAL PREDICTIVE VALUE OF  
THE STATEMENT OF CASH FLOWS OVER EARNINGS:  
THE CASE OF BUSINESS FAILURE**

**A Dissertation Submitted in Fulfillment of the  
Requirements for The Degree of  
Doctor of Philosophy in Accounting**

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## ABSTRACT

The use of financial ratios in the prediction of business failure has been explored in numerous studies since the 1960s. Most of these studies have relied upon accrual accounting measures, proxies of cash flow information, or measures of cash flow from operations. Several of these models have achieved impressive classification accuracies. However, little research has examined the effectiveness of ratios derived from information contained in the statement of cash flows (SFAS No. 95). This study explores the usefulness of such ratios for the prediction of bankruptcy.

The major purpose of this study is to determine whether the statement of cash flows (SFAS No. 95) data can be effectively used to discriminate between bankrupt and nonbankrupt firms. A second objective is to investigate whether the predictive power of the statement of cash flows data is greater than the predictive power of accrual accounting data. The last objective of this study was to determine whether the use of SFAS No. 95 in combination with accrual accounting data can improve the overall predictive ability of accrual accounting data.

Data for 64 bankrupt and 64 nonbankrupt firms were used to test the research hypotheses. Bankrupt and nonbankrupt firms were matched on the basis of their industry and asset size. In order to investigate each of the research hypotheses, models were formulated using six financial ratios based on accrual accounting data, eight financial ratios derived from SFAS No. 95 data. The multivariate discriminant analysis (MDA) and the multivariate logit analysis (MLA) were performed to investigate the research hypotheses.

The empirical evidence suggests that: 1) the statement of cash flows (SFAS No. 95) data can be effectively used to discriminate between bankrupt and nonbankrupt firms, 2) the predictive accuracy of the statement of cash flows data is greater than that of accrual accounting data, 3) the predictive power of SFAS No. 95 data combined with accrual accounting data is greater than that of accrual accounting data alone.



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## CHAPTER 1 INTRODUCTION AND BACKGROUND

### 1.1. Introduction

The Financial Accounting Standards Board (FASB) identifies several objectives of financial reporting in Statement of Financial Accounting Concepts No. 1, Objectives of Financial Reporting by Business Enterprises (FASB, 1978). The primary thrust is that published financial statement should provide information which is useful in making investment and credit decisions. To facilitate the decision-making process, financial information should enable the user to assess the amount and timing of the enterprise's cash flows and thereby evaluate the future prospects and, the present value of the firm. Such analyses involve assessments of probabilities associated with prospective cash flows.

At present, published financial information needed to facilitate the decision-making process is in the form of four general purpose financial statements: the income statement; balance sheet; statement of retained earnings; and statement of cash flows. The obviously quantitative nature of these statements is, by itself, not sufficient for achieving the objective of financial reporting. The information must possess certain qualitative characteristics as well.

In Statement of Financial Accounting Concepts No. 2, Qualitative Characteristics of Accounting Information, the FASB identifies relevance as one of the primary determinants of the usefulness of accounting information. The board states that to be relevant, "accounting information must be capable of making a difference in a decision by helping users to form predictions about the amount of past, present and future events, or to confirm or correct expectations" (FASB, 1980, para.47). The Board also states that timeliness is an important determinant of relevance.

Financial reporting requirements are the result of an evolutionary process. The requirements change as the perceived relevance of particular items changes. This evolutionary process is apparent in the 1987 decision of the Financial Accounting Standards Board to replace the statement of change in financial position with the cash flow statement. Presumably, the FASB perceives the cash flow statement to be more useful than the former "funds"-based statement of changes in financial position. One use that is frequently made of financial statements, as acknowledged by the FASB in its objectives of financial reporting, is to predict future cash flows which, in turn, allows the user to assess the probability of bankruptcy.

The purpose of this study is to determine whether the statement of cash flows provides information which is more useful than the accrual-based information provided by the other general purpose financial statements in predicting bankruptcy. The study also examines whether combining cash- and accrual-based models into more elaborate models provides better prediction of bankruptcy.

### 1.2. Relevance of Cash Flow Information

Cash flow maintains special interest in the financial world. This interest stems from the fact that most valuation models link the value of the firm to its expected future cash flows. Accordingly, the Financial Accounting Standards Board (FASB) has emphasized the importance of cash flow in many occasions. In the FASB's conceptual framework of accounting, the board states that the objective of financial reporting is to provide useful information to help current and potential investors in assessing the firm's future cash flows, among other things.

Until 1988, the basis for cash flow was the Statement of Changes in Financial Position (SCFP), as required by the Accounting Principles Board (APB) Opinion No. 19. In the SCFP, the measure of funds was Working Capital.