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THE DISCLOSURE OF THE UNCERTAIN NATURE OF FINANCIAL STATEMENTS AND READERS' PERCEPTIONS OF REPORTING ENTITIES

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ABSTRACT

The disclosure of the uncertain nature of financial statements has been advocated by a number of publications in Ireland, the United Kingdom, Canada and the United States on the basis that it informs readers of the uncertainty surrounding all financial statements. The directors' responsibility statement currently incorporated in annual reports in the UK and Ireland and the summary of significant accounting policies in US financial statements includes such a disclosure. This paper reports on experimental research which finds that such a disclosure negatively affects assessments of performance and position of some, but not all, reporting entities. The paper concludes that further research is required to examine the signals that such a disclosure sends with regard to reporting entities.

INTRODUCTION

Disclosure concerning the uncertain nature of financial statements is included in annual reports of public companies in Ireland, the United Kingdom and the United States. This disclosure, argues the Accounting Standards Executive Committee (AcSEC, 1994, p. 14), 'is intended to inform users of the inherent uncertainties in measuring' the various elements of financial statements and that the eventual crystallisation of these elements may differ from the original estimates of the directors. 'Such disclosure', it continues, 'alerts users that uncertainties are present in the financial statements of all reporting entities.'

This paper examines reactions by readers of financial statements to the disclosure of the uncertain nature of financial statements. In doing so, the paper explores the role of such disclosure and assesses its effect on readers' perceptions of reporting entities. In particular, the paper suggests that while such a disclosure significantly affects perceptions of some reporting entities, further research is required to ascertain whether it alerts readers to the uncertain nature of all financial statements, as suggested by the AcSEC and others.

The paper is in four main sections. The next section explores the potential role of the disclosure of the uncertain nature of financial statements as set out by policy makers and previous behavioural and accounting research. The second main section describes the research approach and the research results, and this is followed by a discussion of these results in the light of the role of disclosure set out in the first main section. The paper concludes with a discussion of the wider implications of the research findings.

THE DISCLOSURE OF THE UNCERTAIN NATURE OF FINANCIAL STATEMENTS

The summary of significant accounting policies in financial statements in the United States includes an explanation that the preparation of financial statements requires the use of estimates by management. This disclosure, originally proposed by the American Institute of Certified Public Accountants (AICPA) (1987), is presented in **Figure 1.**

Figure 1: Illustration of the Disclosure of the Basis of Financial Statement Preparation

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the reporting date and revenues and expenses during the reporting period. Actual results could differ significantly from those estimates.

Source: (AICPA Task Force on Risks and Uncertainties, 1987, p. 13, and now included in the Statement of Significant Accounting Policies of US companies)

This form of disclosure is also embodied in the directors' responsibility statement in the annual reports of reporting entities in the United Kingdom and the Republic of Ireland. It is not the objective of that statement to disclose the nature of financial statements *per se*, but to respond to a perceived 'expectations gap' by clarifying the responsibilities of the directors and auditors with regard to published financial statements. By doing so, however, it does set out that the financial statements are prepared on the basis of 'suitable accounting policies, consistently applied and supported by reasonable and prudent judgements and estimates'. (The Cadbury Committee, 1992, Note 12).

The disclosure in **Figure 1**, however, is concerned with uncertainty which 'may result, in part, from a misunderstanding of the nature, purpose and method of preparation of financial statements' (Boritz, 1990, p. 44). The assumption is, therefore, that readers of financial statements are unaware of their uncertain nature:

> To the man in the street ... the words 'true and fair' are likely to signify that the accounts give a true statement of facts. He will be likely to associate 'facts' with 'actual profit' and 'actual values'. (Edey, 1971, p. 440)

Similarly, the Financial Accounting Standards Board (FASB) (1976) suggested that the single numbers in which financial statements are expressed exude an aura of exactitude. Both the *Cadbury Report* in the UK (The Cadbury Committee, 1992) and the *Ryan Report* in Ireland (Financial Reporting Commission, 1992) drew attention to potential misunderstandings regarding the role and nature of financial statements. Such a view is confirmed by Parker and Nobes (1994, p. 48) who found that auditors and preparers in the United Kingdom indicated that the 'true and fair view' carried connotations of being 'correct' or of being 'based on fact [. . .] undistorted facts', 'correct' and' objective'. Skinner (1987, p. 134), in contrast, remarks that 'uncertainty is pervasive, and the user of financial statements ought to be presumed to have sufficient acquaintance with the world to know that.'

In a behavioural accounting setting, Bailey, Rylinski and Shields (1983) examined the effect of changes in the wording of the audit report which clarified the nature of the judgements applied in the preparation and auditing of financial statements. They found that the disclosure of the uncertain nature of financial statements in the audit report altered perceptions of the nature of financial statements by readers of those financial statements. On the other hand, Chen and Summers (1981) disclosed probabilistic accounting data with no indication of probabilities associated with the reported figures to a group of experimental subjects. They reported no effect on the decisions of subjects when non-deterministic accounting numbers were reported. They did, however, note that the confidence of subjects in their decision was adversely affected by the disclosure of uncertainty attached to accounting numbers.

Behavioural research more generally suggests that disclosures regarding the nature of financial statements may not only affect expectations of financial statements themselves, but also shape expectations of the entity reported on in those financial statements. If the readers of financial statements are unaware of the uncertain nature of those financial statements, the disclosure of their uncertain nature diminishes their perception of the reliability of financial statements and, potentially, of the performance and position of the reporting entity as viewed through those financial statements. Theories of behaviour such as Einhorn and Hogarth's Venture Theory (Hogarth and Einhorn, 1990, p. 783) suggest that perceptions of the credibility of information are fundamental to the outcome of decisions. They refer to a fundamental part of their decision-making model as 'mental simulation' – what Cohen (1964, Chapter 2) calls 'weighing the evidence' – where adjustments from an initial 'anchor' are a function of, among other things, the credibility of the information source.

Einhorn and Hogarth's (1990) proposition is similar to theories of behaviour by Keynes (1921) and Kahneman and Tversky (1979 and 1984). At the heart of all three theories is the contention that 'ambiguity' or 'vagueness' of information affects the perception of choices faced by decision makers. Such ambiguity, writes Ellsberg (1961, p. 258), is 'a quality depending on the amount, type, reliability and "unanimity" of information, and giving rise to one's degree of "confidence" in an estimate of relative likelihoods.' Ambiguity gives rise not only to the decision maker's degree of confidence but also to the extent to which the decision maker's 'adjustment' varies from the reported 'anchor'.

Financial statements are an information source with which decision-makers construct their perception of the reporting entity. Hence, if the disclosure of the uncertain nature of financial statements informs readers and leads to changed perceptions of the reliability of financial statements, decision makers may also adjust their assessment of the performance and position of the reporting entities, and/or their confidence in those assessments.

This leads to the following hypotheses:

H1: The disclosure of the uncertain nature of financial statements will influence the assessment of performance and position of reporting entities by the readers of the financial statements.

H2: The disclosure of the uncertain nature of financial statements will influence the confidence of the readers of the financial statements in their assessment of the performance and position of reporting entities.

The present research therefore adds to and draws together the previous research by, for example, Bailey et al. (1983), by looking beyond perceptions of financial statements themselves to perceptions of a variety of reporting entities as shaped by disclosures concerning the nature of financial statements.

RESEARCH APPROACH AND RESULTS

This research uses a judgmental experiment to study the individual perceptions of different reporting entities by readers of financial statements given the disclosure of the uncertain nature of financial statements. Four dependent variables are studied: (1) assessments of the performance of reporting entities, (2) assessments of the position of reporting entities, (3) expressions of confidence in the assessments of performance and (4) expressions of confidence in the assessments of position.

In the following subsection, the characteristics of the experimental subjects are described. This is followed by a brief introduction of the experimental results. These results are then analysed in some detail, particularly in the light of the hypotheses outlined.

Description of the Experiment

Seventy-four participants took part in the study (being two-thirds of those invited to participate). Thirty-seven participants were randomly assigned to each of two groups, the control group and the experimental group. Participants were final year or post-graduate students specialising in accounting and/or finance, as well as graduates of accounting and/or finance degree programmes. **Tables 1** and **2** summarise the employment and course attendance respectively of the members of each group. The age, gender, experience and educational backgrounds of the participants were not significantly different between groups. Twenty-three of the control group and 22 of the experimental group were in employment. The average time in employment in each group was 21 months. All of those in employment said they used financial statements as part of their employment.

Table 1: Employment of the Experimental Subjects.

Employment Category	Control Group	%	Experimental Group	%	Total	%
None	14	38	15	41	29	39
'Big N' accounting firm	5	14	5	14	10	14
Other accounting firm	3	8	2	5	5	7
Financial institution	6	16	6	16	12	16
Manufacturing enterprise	5	14	3	8	8	11
Service enterprise	3	8	3	8	6	8
Other employment	1	2	3	8	4	5
TOTAL	37	100	37	100	74	100

Table 2: Course Attendance by the Experimental Subjects.

Course Attendance	Control Group	%	Experimental Group	%	Total	%
None	17	46	16	43	33	45
Final year undergraduate specialism in accounting	8	22	7	19	15	20
Post-graduate specialism in accounting	4	11	4	11	8	11
Post-graduate specialism in finance	3	8	7	19	10	14
MBA - finance specialism	5	13	3	8	8	11
TOTAL	37	100	37	100	74	100

Ashton and Kramer (1980, p. 1) report that 'the use of students as subjects in behavioural accounting research is commonplace.' This is confirmed by a wide-ranging survey of the experimental accounting literature (particularly in *The Accounting Review*, *Journal of Accounting Research* and *Accounting, Organizations and Society*) by Snowball (1986), which found that students participated in 70 per cent of the sample studies. Subjects such as those used in this research were also used in an experimental, financial reporting context by, for example, Birnberg and Slevin (1976), who used MBA students, and Chesley (1986), who used MBA and chartered accounting students. Ashton and Kramer continue (1980, p. 2) that 'the results of decision-making studies in accounting provide at least moderate support for the use of student surrogates', while stressing that prior experience may contribute to differences between student and non-student subjects. In the present research, no significant differences were found between subjects based on their prior experience, or between the responses of student and non-student subjects.

Each participant received an experimental task booklet which included appropriate instructions and the experimental tasks. The booklet contained general instructions for the completion of the tasks, followed by a description of the industry of the reporting entities. The experimental task was as follows: subjects were asked to assess the performance and position of five reporting entities on a scale of 0 (very poor) to 100 (excellent), and also to indicate their level of confidence in their assessment on a scale of 0 to 100. The five reporting entities were all in the technology sector and had differing characteristics comprising high debt (HD), declining turnover (DEC), stable turnover (STA), high growth (HG) and no debt (ND). The control group received the profit and loss account and balance sheet of the five reporting entities for three years in a random order. The experimental group received the same financial statements in a random order, with the disclosure of the uncertain nature of financial statements as outlined in Figure 1. It was indicated to both groups that the profit and loss accounts and balance sheets for all three years were audited with an unqualified opinion.

Furthermore, two initial tasks were designed to assess the ability of the subjects to use financial statements ('aptitude') and the attitude towards financial statement items of the participants in each group. The first of these asked a set of multiple choice questions to assess the aptitude of participants. The second task elicited participants' attitude to the reliability of various financial statements items on a bi-polar scale (0 - 100). This is similar to the approach found by Selto and Cooper (1990) in their review of the control of risk attitudes, and an approach discussed by Sherif (1963) in an exploration of the measurement of attitude in general. Differences between subjects were controlled by ensuring that there was no significant difference in aptitude and attitude between the experimental groups. This is an approach suggested by Kinney (1986).

Assessments of the Performance and Position of the Reporting Entities

The assessments of performance and position by the two groups are given in **Tables 3** and **4**.

Table 3: Mean Assessment of the Performance of the Reporting Entities

Reporting Entity	Control Group (n=37)	Experimental Group (n=37)	% Change	t-statistic	p < (two-tailed)
High debt (HD)	43.0	35.1	-18%	-3.76	0.00
Declining turnover (DEC)	44.3	41.5	-6%	-0.82	NS
Stable turnover (STA)	61.9	46.8	-24%	-3.90	0.00
High growth (HG)	65.3	55.9	-14%	-1.96	NS
No debt (ND)	66.3	67.2	+1%	+0.21	NS
OVERALL	56.2	49.3			

Table 4: Mean Assessment of the Position of the Reporting Entities

Reporting Entity	Control Group (n=37)	Experimental Group (n=37)	% Change	t-statistic	p < (two-tailed)
High debt (HD)	41.2	36.9	-10%	-1.28	NS
Declining turnover (DEC)	42.7	40.6	-4%	-0.75	NS
Stable turnover (STA)	63.9	51.6	-19%	-2.54	0.02
High growth (HG)	59.3	51.1	-14%	-1.51	NS
No debt (ND)	72.0	74.4	+3%	+0.50	NS
OVERALL	55.8	50.9			

The statistical analysis of differences between the control group and the experimental group comprises parametric tests of the comparison of means of independent samples. These were performed after ensuring that the conditions for parametric tests were met as suggested by, for example, Coolican (1994, p. 280). Each group was also positively tested (at the 5 per cent level of significance) for homogeneity of variance using Levene's test of equality of variance.

With the one exception of the company without debt (ND), the experimental group consistently reached a lower assessment of the performances and positions of the reporting entities than the control group. However, this difference is significant (at a 5 per cent level of significance) only in the case of the performance and position of the stable company (STA) and the performance of the borrowing company (HD).

Expressions of Confidence in Assessments of Performance and Position

Subjects were also asked to indicate their confidence in their own assessment of the performance and position of the reporting entities. The results of these assessments of confidence are given in **Table 5.**

T-tests, comparing the mean expressions of confidence of the subjects in their assessment of the performance and position of the reporting entities, revealed no significant difference between the two groups. Neither did that confidence vary significantly between the reporting entities.

Table 5: Mean Expression of Confidence in the Assessment of Performance and Position of the Reporting Entities.

Reporting Entity	**Confidence in Assessment of Performance**		**Confidence in Assessment of Position**	
	Control Group (n=37)	Experimental Group (n=37)	Control Group (n=37)	Experimental Group (n=37)
High debt (HD)	67.6	64.3	71.1	65.4
Declining (DEC)	62.5	61.5	65.5	63.0
Stability (STA)	62.3	60.5	63.4	65.8
High growth (HG)	68.6	66.4	68.6	63.2
No debt (ND)	68.8	65.9	69.3	67.6
OVERALL	66.0	63.7	67.6	65.0

Note: t-tests for the comparison of means revealed no significant differences between the control and experimental groups' confidence in their assessment of performance or position.

EXPLORATION OF THE RESEARCH FINDINGS

Hypothesis **H1** proposed that the disclosure of the uncertain nature of financial statements influences perceptions of the performance and position of the reporting entities. The experimental group's mean assessment of position and performance of the reporting entities was significantly lower than that of the control group in the case of reporting entities with high debt and stable growth. This difference was most marked in the context of performance. Hypothesis **H1** is, therefore, not supported in the context of all reporting entities but only those with high debt (HD) and stable growth (STA).

Hypothesis **H2** proposed that the disclosure of the uncertain nature of financial statements would affect the confidence expressed by the experimental subjects in their assessments of the reporting entities. There were no significant differences in each group's expression of confidence in their assessment of performance and position. Hypothesis **H2** is, therefore, unsupported.

These differences between the control group and the experimental group indicate that the disclosure in the present research sent significantly salient signals only with respect to specific entities (STA and HD). Hence, the views of the *Cadbury Report* in the United Kingdom, the AcSEC in the US and others who suggested that the disclosure that financial statements are a function of the estimates and assumptions of management would 'inform' or alert' readers of the uncertain nature of all financial statements are not supported.

No significant difference was found between subjects' responses based on ANOVA analyses of experience, attitude towards and aptitude with financial statements. (The latter two variables were measured as outlined in a previous section of the paper.) The findings indicate that the subjects, in general, were aware of the uncertain nature of financial statements. This is consistent with the findings of Birnberg and Slevin (1976), who suggest that non-reaction to uncertain information may be because uncertainty was consistent with prior experience.

The disclosure in the present research is intended to educate its readers and enhance their awareness of the uncertain context and character of financial statements. If effective, therefore, this disclosure may render itself redundant over time as its readers come to understand the uncertainty surrounding financial statements. Therefore, an opportunity may also exist for longitudinal research regarding the effect of this disclosure on the learning and decision-making behaviour of financial statement users of varying experience and expertise.

The significant differences between groups in the assessments of the reporting entities with stable growth and high debt suggests that uncertainty arising from the estimates and assumptions of management raised particular sensitivities in the cases of these reporting entities. Previous research by Danos, Holt and Imhoff (1984 and 1989) also found differing patterns of decision-making behaviour by users when they were confronted with the financial statements of differing reporting entities noting (1989, p. 244) that, for example, 'the perceived risk level of the borrower had a significant impact' on the way in which information was subsequently assimilated.

This process is what Boyadjian and Warren (1987) term 'reading the signals' of corporate risk. Stable growth may, for example, read smoothing of growth while high debt may provide an incentive for the estimates and assumptions of management to understate liabilities and/or overstate assets. This, furthermore, suggests not only that the subjects are aware of the uncertain nature of financial statements but that they perceive that the characteristics of the reporting entity shape the financial statements. In the next section, the conclusion of the paper focuses on the potential implications of the present research for the relationship between the disclosure of the uncertain nature of financial statements and the reporting entity. However, further research (utilising a larger sample of reporting entities) is required to examine *why* the disclosure of uncertainty is significantly informative in the case of reporting entities with characteristics such as high debt and stable growth.

CONCLUSION

This paper examined the results of the disclosure of the uncertain nature of financial statements. This disclosure was examined particularly in the context of the objectives of financial statements. These objectives are to give the readers of financial statements information that is useful in making investment decisions. It was argued that information concerning the uncertain nature of financial statements informs expectations of the information used in decision models.

The research compared the assessments of performance and position of reporting entities by those who received the disclosure of the uncertain nature of financial statements with those who did not. Those assessments were significantly lower in the case of two of five reporting entities, those with stable turnover and high debt. Overall confidence was not affected by the experimental disclosure. Hence, the disclosure may be useful (in the sense of influencing decisions) in specific instances, although further research is required to ascertain the signals the disclosure contains with regard to different reporting entities.

Financial statements are a filter through which the reader perceives the reporting entity. This research confirms that, while the behavioural literature suggests that perceptions of the credibility of that 'filter' may affect assessments of the reporting entity, the disclosures of the general nature and environment of financial reporting, as advocated by some policy makers, may affect reporting entities only in a limited way.

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