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Financial analysts' evaluation of enhanced disclosure of non-financial performance indicators

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ABSTRACT

This study examines whether enhanced disclosure of non-financial performance indicators influences financial analysts' decision processes and the information they pay attention to when performing stock-price valuations. These questions are addressed through a verbal protocol study that examines the information-processing behaviours and types of information used by analysts in valuing companies. The protocol analysis provides a detailed, descriptive analysis of the use of non-financial performance indicators in this task.

The results demonstrate considerable attention to non-financial performance indicators. However, that attention was asymmetric depending on the trend-direction of the financial information. Financial information received greater attention when the trend was negative whereas non-financial performance indicators received greater attention when the financial information showed positive trends. Overall, these results elucidate the processes by which analysts utilise non-financial performance information in making valuation and subsequent investment decisions.

1. Introduction

Non-financial performance measures are becoming an important type of disclosure in the corporate environment as evidenced by calls for more of this type of disclosure by organisations such as the Enhanced Business Reporting Consortium (EBRC, 2005) and the Institute of Chartered Accountants in England and Wales (ICAEW, 2003). Non-financial performance measures are based on measures that complement financial statements such as "operational measures on customer satisfaction, internal business processes, and the organisation's innovation and improvement activities" (Kaplan and Norton, 1992, p. 71).[1]

The importance of this issue is documented within the American Accounting Association's Financial Accounting Standards Committee (AAA FASC, 2002) review of the research literature relating to the disclosure of non-financial performance measures. While this review demonstrated that there was value in non-financial disclosures, it also found that such

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[1] 'Non-financial measures' as discussed in this study are closely aligned with some of the measures as proposed by Kaplan and Norton (1992) for use in their BSC. As noted by Kaplan and Norton (1992, p. 71): "The balanced scorecard includes financial measures that tell the results of actions already taken. And it complements the financial measures with *operational measures on customer satisfaction, internal processes, and the organisation's innovation and improvement activities – operational measures that are the drivers of future financial performance*." (Italics added).

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disclosures were relatively uncommon and that, when they occurred, they were varied and unstructured. The AAA FASC acknowledged that archival studies have found associations between certain types of non-financial disclosures and share prices but cautioned that these results show association and not necessarily evidence of usage.

Three key research questions are examined in this study:

- To what extent do financial analysts use non-financial performance indicators when they are performing company valuations?
- Does the trend of the associated financial information affect the use of non-financial performance indicators? And
- Does the trend of the financial information affect the way in which information is processed by analysts in undertaking a valuation?

The major contribution to knowledge from this study and the way in which it differs from prior research into the value of non-financial disclosures (Amir & Lev, 1996; Ittner & Larcker, 1998; Banker, Potter, & Srinivasan, 2000) is that it assesses *how* non-financial performance indicators impact financial analysts' decision processes by using verbal protocol analysis. Verbal protocol analysis is a research method that requires participants to 'think aloud' while performing a task (Ericsson & Simon, 1993). Verbalisations are taped and then transcribed to be used as evidence about the decision-making and information-evaluation processes. By using verbal protocol analysis, this study provides insights into information used in decision-making that cannot be provided by archival studies. This type of research also has advantages over those using experimental methods because it can provide more information on the way in which this information is used. The examination of how professional financial report users utilise non-financial disclosures is relevant to managers in companies thinking about enhanced disclosure policies, regulators considering mandating disclosure of this type of information, as well as to professional and non-professional financial report users in evaluating companies. This study therefore contributes to the discussion on the value of enhanced non-financial disclosure.

A further contribution to knowledge of this study is the examination of whether positive or negative trends of financial information affect the level of attention participants pay to non-financial information, an issue not previously examined in the academic literature. For example, if analysts are using financial information with a negative trend, one might argue that analysts might seek more information about such negative financial information.

Prior research in psychology does suggest that the trend of financial information analysts consider may affect analysts' behaviour, particularly their use of non-financial information. This literature implies that negative information possesses greater diagnostic value (Skowronski & Carlston, 1989) and elicits more cognitive analysis (Taylor, 1991) than positive information, which suggests that individuals place greater reliability and reliance on negative information. The corollary of these findings is that positive information is perceived to be less diagnostically-valuable and receives less cognitive analysis. Therefore, it is anticipated that there would be less perceived-reliability and greater uncertainty about the disclosure of positive information. Under these circumstances, analysts would be expected to seek alternative information in evaluating companies. If non-financial performance indicators are perceived to be value-relevant, they would thus be expected to receive greater attention as an alternative information source. Such a finding would suggest context-specific reliance on non-financial performance indicators, which has not been previously examined in the literature. An archival study by Hutton, Miller, and Skinner (2003) found that managers were more likely to supplement good-news disclosures with verifiable forward-looking estimates – suggesting that companies believe the nature of disclosures affects users' interest in other information.

To address the general research question as to the use of non-financial performance information by users of financial reports, a verbal protocol study was performed using eight financial analysts as subjects. The research was conducted in 2003 in Australia during a fairly stable period in financial markets.[2] The verbal protocol study required participants to value a medium-sized private company that was intending to list on the stock exchange. Participants were provided with the financial statements, for which there was an unqualified audit report, and non-financial information presented in a Balanced Scorecard (BSC) format. The data were collected by obtaining concurrent verbal protocols while the participants performed valuations.

The verbal protocols indicate that substantial attention was paid to non-financial performance indicators by analysts when performing company valuations. However, the degree of attention paid to this information and the decision-making processes adopted differed depending on the trend of the associated financial information. Specifically, when financial information showed a positive trend, more attention was paid to non-financial performance indicators. Further, fewer 'algebraic calculations'[3] were performed, and there was greater reliance on information from memory.

The remainder of the paper is structured as follows. Section 2 provides a review of the literature and the development of the research questions. Section 3 outlines the research method, which is use of the verbal protocol method. Section 4 presents the results and Section 5 concludes the paper.

[2] The year 2003 was in a five year period (1999–2004) when the Australian Stock Exchange's 'All Ordinaries' index stayed relatively stable. In 2004 it started to increase significantly until the collapse of 2007.

[3] 'Algebraic calculations' or ACs are one of the operators a participant could utilise when completing the task. See Appendix 3 for definitions of the operators that were used.