# Impression management: developing and illustrating a scheme of analysis for narrative disclosures – a methodological note

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## Abstract

**Purpose –** This paper develops a holistic measure for analysing impression management and for detecting bias introduced into corporate narratives as a result of impression management.

**Design/methodology/approach –** Prior research on the seven impression management methods in the literature is summarised. Four of the less-researched methods are described in detail, and are illustrated with examples from UK Annual Results' Press Releases (ARPRs). A method of computing a holistic composite impression management score based on these four impression management methods is developed, based on both quantitative and qualitative data in corporate narrative disclosures. An impression management bias score is devised to capture the extent to which impression management introduces bias into corporate narratives. An example of the application of the composite impression management score and impression management bias score methodology is provided.

**Findings** – While not amounting to systematic evidence, the 21 illustrative examples suggest that impression management is pervasive in corporate financial communications using multiple impression management methods, such that positive information is exaggerated, while negative information is either ignored or is underplayed.

**Originality/value** – Four impression management methods are described in detail, illustrated by 21 examples. These four methods are examined together. New impression management methods are studied in this paper for the first time. This paper extends prior impression management measures in two ways. First, a composite impression management score based on four impression management techniques is articulated. Second, the composite impression management score methodology is extended to capture a measure for bias, in the form of an impression management bias score. This is the first time outside the US that narrative disclosures in press releases have been studied.



**Keywords** Impression management, press releases, content analysis

**Paper type** Methodology paper

## 1. Introduction

*What is impression management?*

Impression management has its origins in the psychology literature (Schlenker, 1980; Riess *et al.*, 1981; Schneider, 1981). The term "impression management" refers to the process by which individuals attempt to control the impressions of others (Leary and Kowalski, 1990, p. 34). In the context of corporate reporting, impression management occurs when management selects information to display and presents that information in a manner that distorts readers' perceptions of corporate achievements (Neu, 1991; Neu *et al.*, 1998). Impression management predominantly occurs in less regulated narrative disclosures which focus on interpreting financial outcomes.

*Exercise of discretion and managerial motives for impression management*

Most accounting studies of impression management are based explicitly or implicitly on the assumption that management is motivated by a desire to present a self-serving view of corporate performance (Neu, 1991; Neu *et al.*, 1998). This manifests itself in a number of ways. Firstly, management is hypothesised to want to hide poor firm performance. (Adelberg, 1979) suggested that managers might be expected to obfuscate their failures and underscore their successes. The obfuscation hypothesis, first tested by Courtis (1995), posits that management is not neutral in how it presents information, preferring to communicate in a manner that hides bad news. For example, text reporting negative organisational outcomes is expected to use language and syntactical features that make the text more difficult to read. Management may use rhetorical devices to conceal negative organisational outcomes. A variant on this relates to attributional behaviour by management. In narrative explanations of performance, it is assumed management will act in a self-interested manner and attribute poor performance to external factors or to other factors outside its control (e.g., predecessor CEOs), and attribute good performance to internal factors (i.e., their own good management). Management is expected to manipulate themes by disclosing more positive and less negative information in the form of accounting narratives. A variation on this is selection by management of quantitative amounts such as earnings numbers for disclosure that display the firm in the best possible manner. Visual and presentation techniques are also expected to underplay negative performance and exaggerate positive performance (see, for example, Beattie and Jones, 2002; Courtis, 2004a). Finally for the purpose of showing management in the best possible light,

accounting narratives are expected to contain performance comparators and benchmarks that display the company most favourably.

*Objectives and contribution of the paper*

Beattie *et al*. (2004, p. 213) observe "*…extant approaches to the analysis of accounting narratives…are essentially one dimensional, whereas disclosure is a complex multi-faceted concept*". The purpose of this paper is to develop a holistic measure of impression management for both qualitative and quantitative disclosures. This paper has four objectives: (1) The impression management literature is reviewed from a methodological perspective, summarising the seven methods examined in prior research to measure impression management; (2) Four of the less-researched methods of measuring impression management are described in depth and are illustrated using examples from annual results press releases (ARPRs) of UK companies; (3) A holistic method of measuring impression management is developed in the form of composite impression management scores based on the four impression management techniques studied in the paper. A composite impression management score for both qualitative and quantitative disclosures is articulated. Finally, based on the composite impression management score methodology, (4) a method for measuring the bias introduced into narrative disclosures by impression management is developed, in the form of an impression management bias score.

The paper restricts itself to narrative disclosures. This study focuses on press releases announcing annual results. These press releases contain information on company performance, thereby facilitating an analysis of the influence of performance on impression management. Press releases are voluntary disclosures, released by companies to the market (i.e., to the media, shareholders, wire services, etc.) even though not required by laws or regulations. The content of press releases is largely (but not completely) unregulated, and this makes it easier for managers to manipulate the information disclosed therein, and a potential vehicle for impression management. Their coverage in national newspapers, television and radio business reports by an often uncritical financial media, provides them with a wider audience beyond users who study annual reports (see Maat, 2007 for a more detailed discussion of these issues). Thus, their influence on user perceptions is arguably far in excess of those of other accounting disclosure vehicles.

The paper contributes to the literature in six ways. (1) In-depth insights into four content analysis techniques are provided, illustrating those techniques with 21 examples from UK ARPRs. These are among the less-researched impression management techniques. (2) Most prior research considers a single, or at most two, impression management techniques in a given context. This study applies four techniques: thematic form-orientated analysis, selectivity (choice/selection of performance number), visual/presentation effects (emphasis) and performance comparisons (use of benchmarks). (3) New impression management techniques are studied for the first time in accounting. Visual/presentation effects (emphasis), is articulated in three different ways (location/positioning, repetition, reinforcement). (4) A holistic composite impression management score for impression management is articulated, based on four (out of a maximum of seven) impression management methods. (5) An impression management bias score is computed to measure the extent to which impression management introduces bias into financial reporting. (6) Nearly all of the existing literature (mainly UK, US and Australia) is based on narratives in corporate reports (commonly the president's letter/chairman's statement). Basing this study on narratives in press releases represents an opportunity to extend research findings to a new communications format. While there has been a small number of studies of disclosures in press releases in the US (e.g., Lougee and Marquardt, 2004; Bowen *et al.*, 2005; Johnson and Schwartz, 2005; Davis *et al.*, 2007; Henry, 2008), this is the first study of disclosures in press releases in another country. Press releases are important disclosure vehicles given their subsequent influence on, and even inclusion in, media outlets resulting in wider dissemination of their content compared with the content of annual reports.

*Organisation of the paper*

Prior research on impression management focusing on methodological aspects of that research is reviewed in Section 2. Section 3 sets out in detail the methods applied in this study. These are illustrated using examples from various press releases in Section 4. The paper concludes in Section 5 with a discussion of the implications of the findings, limitations of the research, and the opportunities for future research.

## 2. Prior impression management research

This section of the paper commences by considering the wide variety of disclosure vehicles which contain accounting narratives and which provide management with opportunities to manage readers' impressions. Prior impression management research is then reviewed from the perspective of the methods used to analyse impression management tactics and practices.

*Vehicles for impression management*

The focus of prior research on accounting narratives has been Presidents' Letters, Chairmen's Reports, Management Discussion & Analyses, Operating and Financial Reviews, Auditors' Reports, Financial Statement Footnotes, Interim reports, Prospectuses, Press Releases and Environmental Disclosures (see Tables 2 to 5 in Merkl-Davies and Brennan, 2007).

*Methods of content analysis in prior impression management research*

Table 1 summarises the content analysis methods applied in analysing accounting narratives from an impression management point of view in prior research. Seven approaches have been identified, including syntactic manipulation, rhetorical manipulation, attribution of organisational outcomes (meaning-orientated studies), thematic manipulation (form-orientated studies), selectivity (choice/selection of performance number), visual/presentation effects (emphasis), and performance comparisons. The latter four methods are applied in this paper.

**Table 1: Impression management in corporate documents: Content analysis methods in prior research**

**(1) Syntactical manipulation (method of analysis applied)**

- Adelberg (1979) (Cloze)
- Parker (1982) (Fog)
- Lewis *et al*. (1986) (Fog, Flesch, Kwolek, Dale-Chall, Lix, Fry)
- Courtis (1986) (Fog, Flesch)
- Jones (1988) (Flesch)
- Baker and Kare (1992) (Flesch)
- Stevens *et al*., (1992)[1]
- Smith and Taffler (1992a; 1992b) (Flesch, Lix, Cloze)
- Subramanian *et al*. (1993) (Fog, Flesch)
- Courtis (1995) (Fog, Flesch, Lix)
- Jones (1997)[1]
- Courtis (1998) (Flesch)
- Sydserff and Weetman (1999) (Flesch, Texture index)
- Clatworthy and Jones (2001) (Flesch)
- Sydserff and Weetman (2002)[2] (Flesch, Transitivity index, Diction)
- Rutherford (2003) (Flesch)
- Courtis (2004b) (Flesch)
- Li (2008)
- Merkl-Davies (2007)

**(2) Rhetorical manipulation (method of analysis applied)**

- Thomas (1997) (Passive constructions, Sentence openers, Relationship between first and last paragraph, Euphemisms)
- Jameson (2000) (Multiple voices, Embedded genres, Contrasting focal points)
- Sydserff and Weetman (2002)[2] (Transitivity index, DICTION)
- Yuthas *et al*. (2002) (Comprehensibility, Truth, Legitimacy, Sincerity, DICTION)

**(3) Attribution of organisational outcomes - Meaning-orientated thematic studies (method of analysis applied)**

- Ingram and Frazier (1980)[3] (WORDS)
- Frazier *et al*. (1984) (WORDS)
- Staw *et al*. (1983) (Analysis of performance explanations)
- Aerts (1994) (Analysis of performance explanations)
- Baginski *et al*. (2000) (Manual coding of internal / external causes)
- Hooghiemstra (2001) (Performance explanations, Technical language)
- Aerts (2001) (Analysis of performance explanations)
- Clatworthy and Jones (2003)[4]
- Lee *et al*. (2004) (Attributional statements)
- Baginski *et al*. (2004) (Manual coding of internal / external causes)
- Aerts (2005) (Analysis of performance explanations)
- Ogden and Clarke (2005)[5]
- Barton and Mercer (2005) (Analysis of managerial attributions)

**(4) Thematic manipulation - Form-orientated studies (method of analysis applied)**

- Tennyson *et al*. (1990) (WORDS)
- Abrahamson and Park (1994) (Negative keywords)
- Smith and Taffler (1995) (User perception)
- Abrahamson and Amir (1996) (Negative keywords)
- Smith and Taffler (2000) (Positive/negative keywords)
- Lang and Lundholm (2000) (Type of statements (performance, management spin, forward looking, other), Tone of disclosures (optimistic, pessimistic))
- Clatworthy and Jones (2003)[5] (Positive/negative keywords and statements)
- Rutherford (2005) (Frequencies of 90 keywords)
- Davis *et al*. (2007) (Optimistic/Pessimistic language use, DICTION)
- Henry (2008) (Tone (Frequency positive/negative keywords – DICTION)), Length of press release, Textual complexity, Numerical intensity)
- Clatworthy and Jones (2006) (Length of accounting narratives, Number passive sentences, Number key financial indicators, Number personal references, Number quantitative references, Number future references)
- Matsumoto *et al*. (2006)(Number words positive/negative tone)

**(5) Selectivity (Choice/selection of performance number)**

- Lougee and Marquardt (2004) (Pro forma earnings disclosures)
- Johnson and Schwartz (2005) (Pro forma earnings disclosures)

**(6) Visual/presentation effects (emphasis)**

- Staw *et al.* (1983) (Ordering of information)
- Courtis (1996) (Repetition)
- Baird and Zelin (2000)(Ordering of information)
- So and Smith (2002) (Use of colour)
- Courtis (2004a) (Use of colour)
- Bowen *et al.* (2005) (Emphasis/positioning of pro forma earnings)
- Kelton (2006) (Design characteristics of the accounting information)
- Elliot (2006) (Emphasis/presentation of GAAP and pro forma earnings)

**(7) Performance comparisons**

- Lewellen *et al.* (1996) (Stock return performance comparisons)
- Schrand and Walther (2000) (Prior period earnings benchmarks)
- Cassar (2001) (Disclosure of share performance graphs)
- Short and Palmer (2003) (Performance referents)
- Krische (2005)(Prior period benchmark comparisons of earnings)

[1] Methodological discussion.
[2] Sydserff and Weetman (2002) is difficult to classify as it uses three methods: one reading ease manipulation and two rhetorical manipulation.
[3] Ingram and Frazier (1980) is a corporate social reporting study.
[4] Clatworthy and Jones (2003) test both for the association between positive/negative organizational outcomes and increasing/declining performance and the attribution of positive/negative organizational outcomes to internal/external factors and increasing/declining/performance.
[5] Odgen and Clarke (2005) examine impression management in the context of legitimacy. They use attribution of organisational outcomes in the form of entitlements and excuses as part of a whole array of impression management techniques aimed at gaining legitimacy.
*Source*: Reproduced (with amendments) from Table 2 in Merkl-Davies and Brennan (2007)

Syntactical manipulation in accounting narratives

The largest group of studies comprises an analysis of the language used in accounting disclosures. Much of this research is motivated by the assumption that managers use language to obfuscate corporate performance, especially negative performance. The hypothesis is that negative performance is reported using language that is more difficult to read.

These syntactic studies apply various methods of measuring readability, focusing on analysing the readability of the text using features such as sentence length or number of syllables. Readability is assessed by a readability formula which counts language variables in a text in order to provide a measure of probable reading difficulty for readers. As shown in Table 1, ten different readability measures have been applied in prior accounting research: Fog, Flesch, Kwolek, Dale-Chall, Lix, Fry, Cloze, Texture index, Transitivity index and Diction. Most studies investigating impression management through readability look at the relationship between readability and company performance (Adelberg, 1979; Courtis, 1986; Jones, 1988; Baker and Kare, 1992; Kohut and Segars, 1992; Smith and Taffler, 1992a; Subramanian *et al.*, 1993; Courtis, 1995, 1998; Clatworthy and Jones, 2001).

Readability methodology has been criticized because it originated in the psychology literature where it is used to assess children's writing. Various authors have acknowledged the limitations of readability formulae and their application to accounting narratives, giving rise to issues of validity (Jones and Shoemaker, 1994, pp. 164-5; Courtis, 1998).

Rhetorical manipulation in accounting narratives

This stream of impression management research is also based on the obfuscation hypothesis, whereby management makes linguistic choices and uses rhetorical devices to conceal negative firm performance.

Rhetorical manipulation involves the exercise of linguistic choices to influence meaning. Rhetoric is defined as "*the art of using language so as to persuade or influence others;*

*speech or writing expressed in terms calculated to persuade or impress (often in a depreciatory sense), language characterized by artificial or ostentatious expression*" (Oxford English Dictionary, 1989, p. 857). Llewellyn (1999) observes that the extent to which the point of a story is persuasive/convincing/credible depends on its rhetorical power, which in turn is a function of linguistic techniques such as plots, labelling, metaphor and platitude. To date there has been little research examining rhetoric and argument in financial reporting (exceptions include Warnock, 1992, 2000; Brennan and Gray, 2000). Covaleski *et al.* (1995, p. 26) comment that "*…accounting is not only an instrument for representing an economic reality…but also a rhetorical device for setting forth…*". Thompson (1991, p. 573) states that "*the way theories are justified and legitimated becomes much more one of a debate, conversation or argument in which the attempt is to persuade an assumed sceptical audience. Hence the interest in rhetoric and in the protocols of argumentation*."

Brennan and Gray (2000) examine disclosures in profit forecasts and in takeover documents from the perspective of rhetoric and argument to show how managements use accounting information to defend their own position and rebut the arguments of the other side. Persuasion in forecasts, and the verbal jousting and argument between bidder and target managements during contested bids, is considered. The plausibility and credibility of the language used and the arguments offered are analysed.

Attribution of organisational outcomes - Meaning-orientated thematic studies

An alternative to syntactic analysis is thematic analysis. Prior literature using this approach forms two distinct groups: meaning-oriented and form-oriented studies (Smith and Taffler, 2000). Form-orientated studies are discussed further on in connection with attribution in narrative financial reporting.

Meaning-oriented studies using thematic analysis, summarised in Table 1, investigate patterns of causal reasoning and attribution used to explain corporate performance. For example, Frazier *et al*. (1984) apply factor analysis to extract themes from management analyses of the results of operations in annual reports. The scores from the factor analysis are used to test for differences between good and bad performers and between owner-controlled and management-controlled companies. These studies find that management

has a tendency towards self-enhancement by attributing responsibility for positive outcomes to internal organisational factors; and towards self-protection by attributing responsibility for negative outcomes to external circumstances.

Thematic manipulation in accounting narratives – Form-orientated studies

Form-oriented studies predominantly revolve around the use by management of positive and negative themes, analysing word and sentence frequencies in order to draw inferences. Examples include Abrahamson and Park (1994), Abrahamson and Amir (1996), Clatworthy and Jones (2003) and Clatworthy and Jones (2006). Similar to some other content analysis techniques, there is a degree of subjectivity involved in this analysis, as it relies upon the classification of keywords into positive and negative categories.

For the method to be reliable, it must include a correct measurement specification (Jones and Shoemaker, 1994). To date, form-oriented content analysis studies investigating impression management have been relatively simplistic, for example, using word counts (Clatworthy and Jones, 2003), number of sentences (Kohut and Segars, 1992), coding of certain words (Sydserff and Weetman, 2002). Clatworthy and Jones (2006) is more comprehensive, considering textual characteristics such as quantitative disclosures, key financial performance variables in the text, personal references, passive sentences, future-orientated sentences.

Selectivity

Although selectivity in graphs has been studied extensively in prior research, the scope of this paper is restricted to selectivity in narrative disclosures. Given discretion, management may select performance numbers (most commonly earnings numbers) to report/highlight in narratives that portray firms in the best possible light. Selectivity may be based on numbers generated from generally accepted accounting principles (GAAP) and non-GAAP numbers (Lougee and Marquardt, 2004). The term “pro forma” earnings is commonly used in respect of earnings numbers other than those calculated under GAAP. Two possible explanations for management use of pro forma earnings have been put forward (Johnson and Schwartz, 2005): (1) Management are motivated to provide investors with more accurate and/or more useful information or (2) Managers deliberately

make the firm look more profitable. Where the latter motivation exists, use of pro forma earnings fits the definition of impression management.

Consistent with agency theory, managers are likely to select the metric that portrays the firm in the best light (although there are occasions when the reverse might be true, e.g., big bath accounting). There is widespread evidence that pro forma earnings numbers reported in narrative disclosures in press releases are predominantly income increasing over their GAAP counterpart (Johnson and Schwartz, 2005). This supports an impression management motivation for such reporting. Johnson and Schwartz (2005, p. 924) refer to using pro forma earnings for the purpose of "*managing readers' perceptions of earnings*". They find support for managerial self-serving behaviour in that pro forma earnings exclude more than non-recurring items. They also find that firms that report pro forma earnings have earnings that are no different in persistency compared with firms that report GAAP earnings. This, they say, contradicts the notion that firms use pro forma earnings to draw investors' attention to less persistent, more transitory items in GAAP earnings.

Visual/presentation effects (emphasis)

Jameson (2000, p. 33) observes that discourse has both verbal and visual elements that interact with one another. Visuals such as graphic highlighting, headings, bulleted or numbered lists, colour, shading, logos, may foreshadow verbal discussion or reinforce key points. There are three different ways of emphasising disclosures in narrative financial reporting documents. Firstly, visual emphasis occurs when companies use presentation techniques to make a piece of information more obvious to readers. Examples of such visual emphasis include locating or positioning of disclosures, or emphasis of text using bullet points, bold text, colour, etc. (So and Smith, 2002; Courtis, 2004a). A second form of emphasis is repetition, which occurs when an item is repeated. While Courtis (1996) treats repetition as redundant information, we take a different approach interpreting its usage as a form of emphasis. Finally, reinforcement is a form of emphasis which occurs when a piece of information is emphasised by using a qualifier (an additional word to add emphasis to a keyword, e.g., "Strong growth" – "growth" is the keyword, "strong" is the qualifier).

Bowen *et al*. (2005) examine the way in which pro forma earnings and GAAP earnings in press releases are emphasised. They measure emphasis in two ways: positioning of the disclosure item of interest (pro forma earnings; GAAP earnings) in the press release, and the relative positioning of pro forma compared with GAAP earnings. They find that managers emphasise the metric that portrays the firm in a better light.

Impression management using performance comparisons

Another technique to create an impression of performance that may be biased is to choose benchmarks which portray current firm performance in the best possible light (performance comparisons). Lewellen *et al.* (1996), Schrand and Walther (2000), Cassar (2001) and Short and Palmer (2003) investigate the selective use of a benchmark to highlight positive changes in earnings. Performance comparisons have been studied in the context of performance referents, benchmark earnings number, and benchmark comparisons in proxy statements and share performance graphs.

One of the first benchmark studies was Lewellen *et al.* (1996) who examined ordinary share price performance benchmarks disclosed in corporate proxy statements. They found that the benchmarks chosen were biased downwards, which had the effect of allowing management to overstate relative share return performance.

Short and Palmer (2003) investigate the way CEOs monitor and interpret organizational performance by means of comparisons of performance indicators against internal (such as past performance) and external (such as competitors and industry averages) reference points. They perform content analysis on Presidents' Letters to Shareholders of 116 US companies. They find a strong preference for the use of internal referents (85.4%) as compared with external referents (14.6%) to assess performance. They find CEOs of large and well-performing companies use more external referents (comparisons with competitors and industry averages) in their performance explanations than those of small and poorly-performing companies.

Schrand and Walther (2000) find that managers are more likely to select the lowest prior period comparative benchmark earnings number that enables them to report the highest year-on-year increase in earnings.

Cassar (2001) investigates use of benchmark comparisons in share performance graphs. Almost all sample companies (87%) perform (share price performance and accumulated share investment) better than their benchmark (generally market indexes). This suggests that, when managers have discretion, they select the information presenting the best performance for the company.

This review of prior literature has pointed to many different tactics and methods of impression management in corporate narrative disclosures in financial reports. These methods have tended to be considered individually in prior studies. Of the seven prior impression management methods identified in Table 1, thematic manipulation (form-orientated studies), selectivity (choice/selection of performance number), visual/presentation effects (emphasis), and performance comparisons are applied in this research to the analysis of disclosures in press releases. Literature reviewed here suggests that these four techniques are among the least researched in prior literature. These four techniques lend themselves to the content analysis methodology applied in the research.

## 3. Methods used to measure impression management in this paper

This section discusses the approach taken to analyse ARPRs. As all four methods involve manual content analysis, the benefits of manual content analysis and computer-aided approaches are compared. Examples from press releases are provided to illustrate the different impression management techniques used in ARPRs.

*Data sources*

The disclosure vehicle chosen for this study is the ARPR. As previously mentioned, these are important disclosure vehicles given their wider dissemination in the media. ARPRs were chosen for a number of reasons: (1) Most listed companies issue such a press release. (2) The content of ARPRs is more comparable with respect to content given that they all have a common purpose (to announce annual results). (3) Some measures of impression management require a performance number (e.g., selectivity, performance comparisons). Performance numbers are more likely to appear in ARPRs, than press releases announcing other corporate events.

ARPRs were first gathered from official sources (Regulatory News Service-RNS). Where the press release was not available from this source, the company website was searched. Where the press release was not available from these public sources, the press release was obtained directly from the company.

Twenty one illustrative examples (excluding Appendix 1) of disclosure practices were selected from a sample of 101 UK ARPRs. For the purposes of this paper, the examples selected are *ad hoc* and serve to provide illustrative rather than systematic evidence of disclosure practices. However, as impression management may be influenced by company performance, a distinction is made between good news and bad news companies. Classification of good/bad news companies is by reference to whether reported profits were higher in the current year than the previous year. While this is a crude dichotomous measure, such an approach is not uncommon (e.g., Staw *et al.*, 1983; Beattie and Jones, 1992; Clatworthy and Jones, 2001, 2003; Smith and Taffler, 1992a, b, 1995).

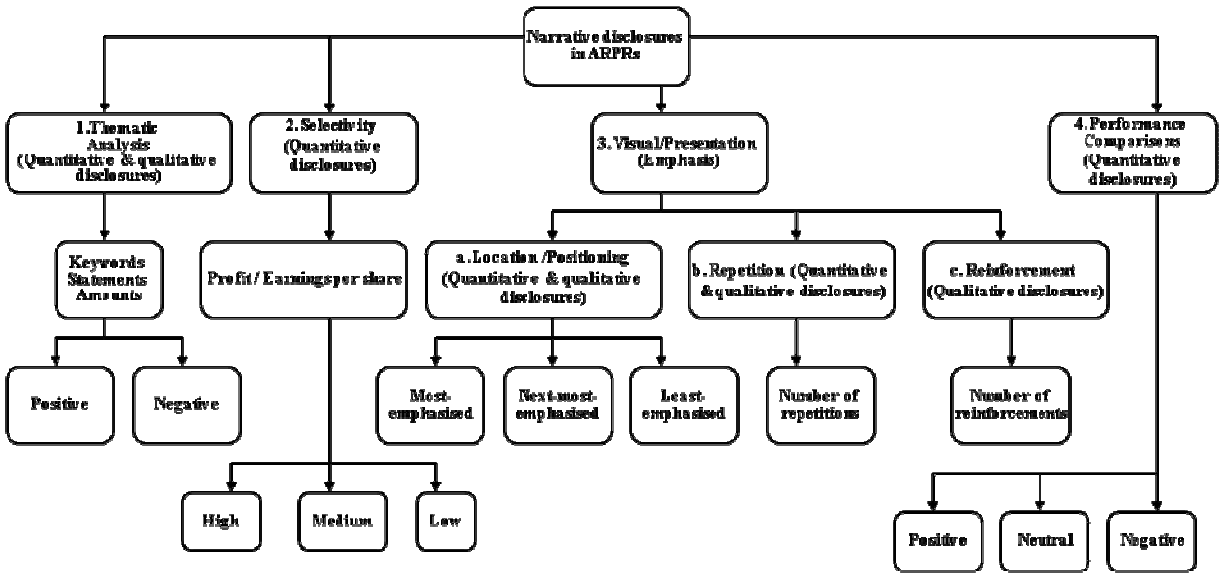
A single year (2000) of data was examined for two reasons: (1) to eliminate the potential confounding effects of changes in reporting rules over time; and (2) to avoid the post-Enron period when significant changes in disclosure practice and behaviour were taking place. Only press releases published before the end of July 2001 were included in the research, three months before the financial scandals started (Enron was exposed in October 2001) and five months before the first cautionary advice was issued by the SEC in December 2001.

*Measuring impression management*

Four content analysis approaches are adopted in this study: (1) A thematic, form-oriented analysis based on keywords, statements and amounts; (2) Analysis of selectivity of quantitative information; (3) Analysis of three visual/presentation techniques to emphasise including (a) the location, positioning and visual presentation of disclosures; (b) emphasis by repetition; and (c) emphasis by reinforcing disclosures and (4) Use of performance comparisons. These four techniques lend themselves to manual content analysis of disclosures and as such form a methodologically cognate cluster. The analysis distinguishes between quantitative disclosures in accounting narratives and qualitative

disclosures. Figure 1, which is based on a similar figure in Beattie *et al*. (2004), summarises the methods of measuring impression management adopted in this study and specifies whether the technique is applied to quantitative or to qualitative disclosures. The coding categories for each impression management method is also shown.

Figure 1: Architecture of coding scheme for narrative disclosures, including coding categories




Adapted from Figure 2 in Beattie *et al.* (2004)

Manual content analysis

Duriau et al. (2007) performed a content analysis on the content analysis literature in organisation studies. Having listed the advantages of computer aided textual analysis over manual methods (larger data sets, reliability, speed, lower cost), they express surprise that only 24 of the 98 papers they analysed report using computers for part or all of the content analysis. Morris (1994) has tested the validity and reliability of manual and computerised approaches. She found that computerised and manual results agreed at an acceptable level, and that computerised coding achieved an acceptable level of semantic validity. Conversely, in a more recent study, Conway (2007) found that human and computer-assisted coding yielded significantly different results in a content analysis of newspaper coverage of a political campaign. He observes that several subjective steps have to be taken to adapt the content to the program, and that those decisions can be

arbitrary and fall outside the concept of traditional intercoder reliability. Conway (2007, p. 187), referring to the work of Linderman (2001) states: "*Linderman concluded that comparing human and computer-assisted coding depends on the complexity of categories, with computers working best when categories are* '*easy to operationalize*'*, but human coders working better with complex categories.*" It is our contention that impression management techniques are subtle and sophisticated, and therefore complex, and warrant manual content analysis.

Previous studies dealing with the content of accounting narratives have used computer programmes (e.g., Ingram and Frazier, 1983; Frazier *et al.*, 1984; Tennyson *et al*., 1990; Smith and Taffler, 2000; Rutherford, 2005; Henry, 2008; Matsumoto *et al.,* 2006; Davis *et al*., 2007) or a mixture of manual and computer coding (e.g., Smith and Taffler, 1992a; Subramanian *et al.*, 1993; Abrahamson and Park, 1994; Abrahamson and Amir, 1996; Smith and Taffler, 2000). Others have done all the coding manually (e.g., Bettman and Weitz, 1983; Staw *et al.*, 1983; Salancik and Meindl, 1984; Courtis, 1986; Jones, 1988; Lang and Lundholm, 2000; Clatworthy and Jones, 2003). Thus, manual and computerised analyses are not necessarily alternatives. In many cases both approaches have been used together.

For thematic analysis, computer-based techniques typically rely on software to list the frequency of occurrence of words which are afterwards coded by researchers (for example, Abrahamson and Park, 1994). Computerised analysis generally requires lists of keywords to be assembled in advance, and is not as adept at classifying keywords depending on context. In manual analysis, the researcher codes keywords and statements directly from the content of the text analysed. Given the virtually inexhaustible list of possible keywords, manual coding is arguably more reliable than a computerised approach (Wallace, 1992). Judgement is required in applying coding methods in thematic analysis. Even greater subjective judgement is required to analyse selectivity, visual/presentation effects (emphasis) and performance comparisons.

Similar to other corporate documents, the variety of formats of press releases could be problematic using computerised coding of visual/presentation effects (emphasis). For example, some ARPRs include a headline, others do not; some contain only one paragraph,

others contain many paragraphs. A further complication in measuring selectivity is that the data comes from two sources: ARPRs and annual reports. Given the limitations of computerised coding in a complex data set, manual analysis is used in the current study.

Manual content analysis is labour-intensive and time-consuming, which limits sample sizes. However, content analysis allows more detailed and sophisticated analysis and comparisons. It has been subject to criticism due to low validity and reliability arising from the exercise of subjectivity in manual coding. These criticisms are considered further on in the paper.

*Reliability and validity of coding*

Reliability in the context of content analysis refers to the amount of intercoder agreement between multiple coders of the same text. Krippendorff (1980) identifies three types of reliability: (i) stability, the extent to which the analysis remains unchanged over time; (ii) reproducibility, the degree to which the analysis can be recreated using different individuals; and finally (iii) accuracy, the degree to which the analysis conforms to a standard. Validity, on the other hand, refers to the appropriateness of the conclusions, given the content analysis methodology adopted. Morris (1994) describes four types of validity: (i) construct validity, the extent to which the content analysis variables are correlated with other measures of the same construct; (ii) hypothesis validity, the extent to which the content analysis variables behave as they are supposed to in relation to other variables; (iii) face validity, the extent to which the method appears to measure the construct it is intended to measure; and (iv) semantic validity, the extent to which persons familiar with the language and texts agree with the list of words placed in the category have similar meanings or connotations. Thus, the validity of the underlying classification is dependent on researchers' knowledge and experience of the domain being investigated.

The test for reliability used in this study is consistent with Clatworthy and Jones (2003), who used a pre-sample of 20 as recommended by Krippendorff (1980) and Breton and Taffler (2001). In this study, reliability of the coding process for qualitative data was tested as follows: a pre-sample of 20 press releases was coded by two independent researchers and the results were compared with recommended reliability levels. The first

coder is one of the authors; the second coder is a researcher with a background in mass communications.

Of the 20 press releases, ten were selected randomly among good news companies and ten among bad news companies. The second coder was provided with coding instructions prepared by the first coder[1,2], copies of the 20 ARPRs, category definitions (positive/negative keywords/statements), and a form for recording the number of items in each category for each ARPR. Results of the two coders were compared with differences teased out and instructions/definitions refined to ensure consistent coding of the entire sample.

Content analysis techniques involving quantitative disclosures (selectivity, performance comparisons) were not tested for reliability as these disclosures are considered to be capable of more objective coding.

Assessing achieved reliability

The coding agreement rate can be calculated using different methods. The simplest measure is the coefficient of agreement, the ratio of the number of pairwise intercoder agreements to the total number of pairwise judgements (Milne and Adler, 1999). The percentage of agreement between coders recommended in the literature ranges from 90% (Clatworthy and Jones, 2003) to 80% (Hackston and Milne, 1996; Milne and Adler, 1999). One of the limitations of this way of calculating reliability is that, as the number of coding categories becomes fewer, the likelihood of random agreement increases. Thus, the coefficient of agreement measure will tend to overestimate the coders' reliability and this overestimation increases with fewer categories. In this study, as shown in Figure 1, the number of categories for each impression management method is generally relatively low (generally two to three categories) and therefore the likelihood of random agreement is high.

In this study, the coefficient of agreement is calculated following Milne and Adler (1999). The correspondence between the two coders was high. Overall, the first coder identified 1,729 items in the impression management methods and categories (keywords/statements, emphasis by location/positioning/visual presentation, emphasis by

repetition, emphasis by reinforcement) in the sample of 20 ARPRs analysed, while the second coder identified 1,681 items, resulting in a concordance of over 95%.

However, agreement for two of the impression management methods was low. The area of most disagreement concerned emphasis by repetition. For example, whereas the first coder identified 29 statements (27 positive and two negative) repeated in the sample of 20 ARPRs, the second coder found only six (five positive and one negative) resulting in an agreement of only 21%. This may be due to: (1) small counts in some categories (i.e., number of repeated negative statements coded by the first coder is two and by the second coder, one; this results in marginal disagreement of 50%); (2) coding rules are not sufficiently clear. This issue was discussed between the two coders and all cases were identified, studied and analysed separately. The coding rules were revised and rewritten as recommended by Weber (1990, p. 23).

Another area of lower than acceptable agreement arose in coding emphasis by location/positioning/visual presentation of disclosures. Coding of the location/positioning/visual presentation of keywords (64% agreement) and statements (58% agreement) did not reach the rate of agreement recommended in prior literature. This is due to variability in coders identifying the length of the sections in press releases. For example, if one of the coders identifies a longer/shorter most-emphasised section, the number of keywords/statements included in this section may vary greatly. For example, in the case of Ashtenne Holdings PLC ARPR 2000, one of the coders identified the most-emphasised section of the press release to be one single statement (four words length), whereas the other coder considered the most-emphasised section as being longer, including a set of five bullet points (114 words length). In this case, the approach taken to resolve disagreement was the same as for repetition of statements (i.e., discussion, analysis, and refinement), and the coding rules for location/positioning/visual presentation were re-written.

In order to resolve disagreement encountered in two of the impression management methods/categories coded (emphasis by repetition and emphasis by location/positioning/visual presentation) the following actions were taken: (1) the coding rules were revised and changed to promote greater consistency following suggestions

from the second coder, (2) all cases of disagreement were checked and resolved through discussion and (3) using the revised coding rules, a different random sample of 20 press releases was selected and the coding of the two impression management methods/categories with high disagreement (repetition and visual emphasis) was repeated by both coders. Results from this second coding were satisfactory. The rate of agreement achieved for emphasis by repetition of statements was 95%, while the rate of agreement for emphasis by location/positioning/visual presentation reached 84%.

*Thematic analysis in press releases*

Thematic analysis involves analysing texts for themes or tones of expression. In content analysis, the unit of analysis can be a word, sentence, theme, paragraph or even the whole text (Weber, 1990, p. 22). Individual words have no meaning without a sentence or sentences for context. Hence, there are reservations about computerised keyword searches. Although computers speed up the coding of reports, they may also include coding mistakes. In relation to the unit of analysis, Milne and Adler (1999) distinguish between units used as a basis of coding, versus units of analysis used for measuring disclosure. They observe that as a basis for coding, sentences have been shown to be more reliable than any other unit of analysis. Most social and environmental content analyses use sentences as their unit of analysis. The same unit of analysis is usually not used for both coding and measuring, with measuring being more commonly based on words.

In this study, both keywords and statements are analysed, for two reasons: (1) this approach permits a form of methodological triangulation, cross-checking the analysis of positive and negative information; and (2) it identifies results where keywords and statements provide different outcomes. For instance, a statement might include multiple positive keywords, yet it may be counted as one positive statement. Results from the study of both keywords and statements are expected to be similar (as keywords are likely to influence categorisation of statements) and therefore provide a crosscheck on reliability.

Analysis of keywords

A keyword is one which implies an outcome for the firm. Following prior literature, positive and negative keywords are identified and coded. A word was coded as negative/positive under two conditions (Abrahamson and Park, 1994; Abrahamson and Amir, 1996): (1) The sentence in which it is mentioned includes a negative/positive outcome for the company; or (2) The sentence mentions the environment affecting the company negatively/positively.

As shown in Table 1, thematic analysis has been carried out by reference to keywords (Tennyson et al., 1990; Abrahamson and Park, 1994; Abrahamson and Amir, 1996; Smith and Taffler, 2000; Clatworthy and Jones, 2003; Rutherford, 2005; Henry, 2008), tone/language (Lang and Lundholm, 2000; Davis *et al.*, 2006), and using other constructs (Smith and Taffler, 1995; Lang and Lundholm, 2000; Clatworthy and Jones, 2006; Henry, 2008). The methodology of Tennyson *et al*. (1990) is complex and includes analysis of the relationships of the frequencies of words, and factor analysis of interrelated words into themes. Starting with Weber's initial content analysis dictionary, Smith and Taffler (2000) used the Oxford Concordance Program to augment and generate a dictionary of 168 words. They also analysed linear additive composite variables. Their measures are scaled by the number of words in the narrative. Sentences were also analysed thematically.

This research uses simpler methods of thematic analysis. A list of keywords was developed, starting with lists from prior research. Three such lists were used: Clatworthy and Jones (2003) for positive keywords; and Abrahamson and Park (1994), Abrahamson and Amir (1996) and Clatworthy and Jones (2003) for negative keywords. These lists were added to during the subsequent coding of the sample of 101 press releases, culminating in a final list of 301 keywords. Rutherford (2005) and Henry (2008: 387) also used word lists (90 and 190 words, respectively). All except 18 words[3] of the 190 words in Henry's list are common to the lists in this paper. Rutherford's word list is not comparable to the list in this paper as he does not classify words between positive and negative. Unlike other researchers, Rutherford (2005) did not treat grammatical variations separately. He combined 16 words that were closely related (i.e., singular and plural manifestations). Conversely, Henry (2008) treated similar words separately.

Table 2 analyses the number of keywords in this study between positive and negative and by reference to their use in prior literature. Of the 301 keywords, 127 (>40%) are unique to this research. This is due to a number of factors: (1) the present study includes all keywords appearing in the press releases, even though the usage frequency might be very limited (e.g., the words "disruption", "boosted" and "rockets" appear only once in the sample), (2) similar to Abrahamson and Park (1994), Abrahamson and Amir (1996) and Clatworthy and Jones (2003), grammatical variations of words are also counted as separate keywords (e.g., "extended", "extending", "extensions" and "extensive"). For example, out of 109 positive keywords new to the current study, 39 are grammatical variations of other keywords (i.e., "lead" is a keyword new to this study; however, there were three grammatical variations also used in the analysis "leader", "leadership" and "leading").

**Table 2: Keywords used in this research**

| | **Positive** | **Negative** | **Total** |
|---|---|---|---|
| Keywords used by both A&P/A&A and C&J | None | 57 | 57 |
| Keywords used by A&P/A&A only | None | 2 | 2 |
| Keywords used in C&J only | 108 | 7 | 115 |
| Keywords unique to this study | 109 | 18 | 127 |
| Total number of keywords used in this research | 217 | 84 | 301 |

A&P/A&A–Abrahamson and Park (1994) / Abrahamson and Amir (1996) (only negative keywords)
C&J – Clatworthy and Jones (2003)

Following Clatworthy and Jones (2003), coding of a keyword between negative and positive depends on the context in which it is used. Coding has to be done in context in order to differentiate between different meanings and connotations of keywords. To illustrate, Example 1 shows a sentence with three keywords. The words 'up' and 'increase' are both individually considered positive (because they are associated with the phrases 'profit before tax' and 'dividend per share') while 'down' is a negative keyword (because it is associated with the phrase 'investment profit').

**Example 1: Keywords (*Brixton Estate plc* ARPR 2000)**

Profit before tax up [Keyword+1] 7.4% to £43.5m; investment profit down [Keyword–1] 2.2% to £39.6m; total dividend 10.3p per share, an increase [Keyword+2] of 3.0%.

In Example 2 'ahead' in the first extract means greater than global market growth and is counted as a keyword. In the second extract, 'ahead' is a reference to the following year and is not counted as a keyword. A simple word count, whether conducted by computer or by person, will not highlight such contextual differences.

**Example 2: Keywords in context (*Aegis Group plc* ARPR 2000)**

Turnover £5,712.5 million, up [Keyword+1] 19.2% (1999: £4,791.8 million) - *ahead* [Keyword+2] of 8% global market growth…

….which leads me to be optimistic [Keyword+3] about our prospects for the year *ahead*

Analysis of statements

In this study, a statement is defined as "a cluster of words with different meanings or connotations that, taken together, refer to some theme or issue" (Weber, 1990, p. 37). This allows for the occurrence of more than one statement within a sentence. Similar to keywords, statements are classified into positive and negative.

The definition of a statement can be ambiguous. Sentence, phrase, statement and theme all have similar meanings and can be used by researchers interchangeably. For example, Clatworthy and Jones (2003) use the terms "sentence" and "statement" interchangeably (confirmed by one of the authors in personal communication). Further, the definition can be adapted for a particular type of study. For example, Salancik and Meindl (1984, p. 245) define causal statements as "*those that relate two events by a causal connective or connective phrase such as 'caused', 'if then', 'because', 'attributable to'; and so on"*. Similarly, Aerts (2001, p. 13) defines statements as "*a phrase or a sentence in which a corporate event or performance outcome was linked with a reason or cause for the event or outcome*". Although, as seen above, "statement" and "sentence" can be interchangeable, a sentence may include more than one statement. This implies that, where a sentence deals with more than one issue that could be analysed separately, the issues should be treated as separate statements. Example 3 illustrates the inclusion of

more than one statement within a single sentence. Four statements can be identified from the sentence (three positive, one negative).

**Example 3: Analysis of press releases by statements (*Dawson International PLC* ARPR 2000)**

Many challenges lie ahead[Statement–1] but we believe we have the foundations to build on the many achievements of the last 12 months [Statement+1], deliver our stated goals [Statement+2] and remain focused on further improving shareholders value[Statement+3].

The first sentence in Example 4 includes three positive keywords ("improved", "biggest", "improvement") and two positive statements. The second sentence includes one positive keyword ("up") and one positive statement. The analysis using statements as the unit of analysis is different in that there are only three positive statements in total, compared with four positive keywords.

**Example 4: Statement including varying numbers of keywords (*British Airways PLC* ARPR 2000)**

Passenger yields per RPK improved[Keyword+1] by 7.7 per cent [Statement+1], the biggest[Keyword+2] year-on-year improvement[Keyword+3] since privatisation in 1987 [Statement+2].

Group turnover for the full year was up[Keyword +4] 3.8 per cent at £9,278m (£8,940m) [Statement+3]

Table 3 shows a list of words with positive connotations (positive keywords) and negative connotations (negative keywords) used by *TDG Plc*. (The actual wording of the press release is reproduced in Example 5). As previously mentioned, context is important in the coding process. The word "reduction" is a negative keyword because it is associated with the word "profits". Although the company experienced a decrease in profit (Profit after tax fell from £15.7 million in 1999 to £9.2 million in 2000), the list of keywords in Table 3 shows how the company creates a positive impression. There are only three negative keywords whereas there are 15 positive keywords (one of which, "up", is mentioned five times) included in the press release.

**Table 3: List of keywords *TDG Plc* ARPR 2000**

| **Positive** | | **Negative** | |
|---|---|---|---|
| 1. Growth | Keyword+1 | 1. Reduction | Keyword–1 |
| 2. Up (x 5 times) | Keyword+2,3,5,6,9 | 2. Decline | Keyword–2 |
| 3. Excellent | Keyword+4 | 3. Down | Keyword–3 |
| 4. Improved | Keyword+7 | | |
| 5. Increased | Keyword+8 | | |
| 6. Significance | Keyword+10 | | |
| 7. Grow | Keyword+11 | | |
| 8. Profitably | Keyword+12 | | |
| 9. Effective | Keyword+13 | | |
| 10. Strong | Keyword+14 | | |
| 11. Progress | Keyword+15 | | |

*Key:* Keyword + : Positive; –: Negative

Example 5 also shows the analysis of the press release into positive and negative statements. The analysis of statements shows similar results to that using keywords. The number of positive statements is much higher (at 12) compared with the number of negative statements (at two). Although profits fell, the higher number of positive than negative statements implies a more positive performance than the actual underlying financial position of the company would suggest.

Analysis of amounts

Thematic analysis is also applied to quantitative amounts included in narrative disclosures in ARPRs. An amount is coded as positive or negative depending on whether the current year amount is higher or lower than the prior year amount. Categorisation of amounts into positive or negative is only possible where the comparative amount or an explicit statement of the direction of the item is provided in the ARPR itself.

*Analysis of selectivity in press releases*

Companies are expected to be selective in the financial amounts they disclose in press releases, choosing higher profit/earnings per share numbers from the range of numbers available for disclosure because this shows a better picture. *Wolseley plc* illustrates the second type of selectivity in Example 6 – picking the "better" profit amount from a selection of profit numbers which could be used in the press release.

**Example 5: Identification of positive and negative keywords and statements in press release (*TDG Plc* ARPR 2000)**

STRONG GROWTH[Keyword+1] IN CONTRACT LOGISTICS[Statement+1]

- Group turnover up[Keyword+2] 7% to £456 million (up[Keyword+3] 9% at constant exchange rates)[Statement +2]
- Excellent[Keyword+4] performance from core Contract Logistics business across Europe[Statement+3] - Turnover up[Keyword+5] 14%[Statement+4] and Operating profit up[Keyword+6] 18%[Statement+5]
- Profit reduction[Keyword–1] in Storage & Distribution due to first half decline[Keyword–2] in cold store utilisation.[Statement–1] Second half performance significantly improved[Keyword+7 Statement+6]
- Overall, headline profit before tax down[Keyword–3] 6% to £24.7 million[Statement–2]
- Final dividend increased[Keyword+8] by 5% to 7.4p, giving 12.4p for the year, up[Keyword+9] 5%[Statement+7]
- Announcement today of alliance with Eagle Global Logistics[Neutral statement]

David Garman, Chief Executive of TDG, commented:
'In December 1999, we announced a forward strategy to transform TDG from a predominantly UK and asset-based business, to a truly Europe-wide, solutions based provider of logistics services. Our results for the year reflect the significance[Keyword+10] and scale of our transformation during this transition period.[Statement+8]

We have demonstrated that we can grow[Keyword+11] our Contract Logistics businesses rapidly and profitably[Keyword+12 Statement+9]. We have also taken effective[Keyword+13] action to resolve issues in parts of our Storage & Distribution business[Statement+10]. We have a strong[Keyword+14] management team[Statement+11] who are focused on delivery, and I am looking forward to reporting on further progress[Keyword+15] in 2001.[Statement+12]

*Note*: Positive statements 3 and 9 are considered repetitions of positive statement 1. Repetition is discussed later in the paper.

**Example 6: Selection of profit and EPS figures for inclusion in the ARPR from the P&L account (*Wolseley plc* ARPR 2000)**

Profit figures
Group trading profit up £60 million (19.2%) to £373.2 million

EPS figures
Earnings per share before exceptionals and goodwill amortisation up 11.0% to 42.26 pence

*Note*: See full profit and loss account of Wolseley in Appendix 1 which shows the full choice of profit figures and EPS figures from which the above selections were made

*Wolseley plc* performed relatively poorly in 2000 (Profit after tax and minority interests 1999: £198.9 million; 2000: £193.5 million). *Wolseley plc*'s full profit and loss account is shown in Appendix 1. It contains ten profit numbers (marked from ❶ to ❿ in Appendix 1) and three earnings per share amounts (marked from ① to ③ in Appendix 1) on the face of the profit and loss account from which to select for disclosure in the press release. Influences on the number to select are likely to be two fold: the absolute amount of profit and the increase shown by that amount over the prior year amount. Of the ten profit numbers, four (from profit on ordinary activities before tax onwards ❼ to ❿) show a decrease over the previous year. The profit figure selected by the company for inclusion

in the press release (Operating profit) is the second largest amount (in absolute terms) of the ten profit figures in the profit and loss account showing an increase of 19.2% over the prior year. Had the largest absolute amount been chosen, this would only have shown an increase of 16.8% over the prior year. This possibly accounts for the choice of second highest profit amount. The only amount that could have shown a better picture would have been profit before goodwill amortisation and after exceptional items❷, which shows an increase of 21.1% over the previous year. Profit before tax and interest❻ is not selected, possibly as this only shows an increase over the previous year of 6.6%.

The earnings per share figure selected for inclusion in the press release is the largest of the three earnings per share figures on the face of the profit and loss account, and is the only one that shows an increase over the prior year amount. The profit amount selected is after goodwill, exceptionals and before loss on disposal of discontinued operations. However, the earnings per share amount selected is before goodwill and exceptionals.

To convert selectivity to a common-size measure, regardless of the number of profit/earnings per share amounts disclosed in the profit and loss account, the following approach is adopted in this study. All profit and EPS figures reported on the face of the profit and loss account are ranked from the lowest amount to the highest amount, based on monetary value (see illustration in Appendix 1). The amount selected for inclusion in the press release is identified. The amount chosen for inclusion in the press release is assigned to one of three categories of selectivity, High, Medium, Low. Figure 2 illustrates the categorisation of selectivity, assuming ten earnings amounts are disclosed in the profit and loss account (i.e., the number of profit amounts in *Wolseley plc*'s profit and loss account in Appendix 1).

**Figure 2: Measuring selectivity: Assigning categories**

| No. amounts | Ranking |
|---|---|
| 1<br>2<br>3 | High |
| 4<br>5<br>6<br>7 | Medium |
| 8<br>9<br>10 | Low |

**Example 7: Selection of performance figures from the P&L account (*Barclays PLC* ARPR 2000)**

- Operating profit rose 21% to £3,580 million from £2,964 million
- Exceptional items of £214 million, up from a deficit in 1999 of £138 million. This includes sale of Dial and Barclays Property Investment Management
- Profit before tax up 42% to £3,496 million from £2,455 million
- Business as usual costs savings of £260 million
- Woolwich acquisition expected to lead to pre tax synergies of more than £400 million per annum by 2004, up from forecast £240 million
- Earnings per share based on operating profit above, up to 163.6p from 143.6p
- Dividend per share up 16% to 58.0p from 50.0p
- £26.3 million donated to the community

Operating profit shown above includes the results of The Woolwich from 25th October 2000. It excludes the 1999 and 2000 restructuring charges, goodwill amortisation and costs directly associated with the integration of The Woolwich. Earnings per share based on this operating profit also exclude exceptional items.

In addition to selecting from the financial statements the best numbers to disclose, companies may disclose amounts that are not reported in the financial statements (although they may appear elsewhere in the annual report). The following example illustrates this practice. In Example 7, Barclays' ARPR includes operating profit of £3,580 million for the year 2000. This information is shown as the first item, in bullet point, at the beginning of the press release. Further down in the press release (in the least-emphasised section – see below for a discussion of least/most-emphasised), the operating profit of £3,580 million is shown to include the results of an acquisition and to exclude the 1999 and 2000 restructuring charges, goodwill amortisation and costs directly associated with the integration of this acquisition. The actual operating profit on the face of the profit and loss account is £3,290 million, £290 million lower than the number

disclosed in the press release. The operating profit included in the ARPR is what would be referred to as a pro forma earnings number in the US literature.

*Analysis of emphasis in press releases*

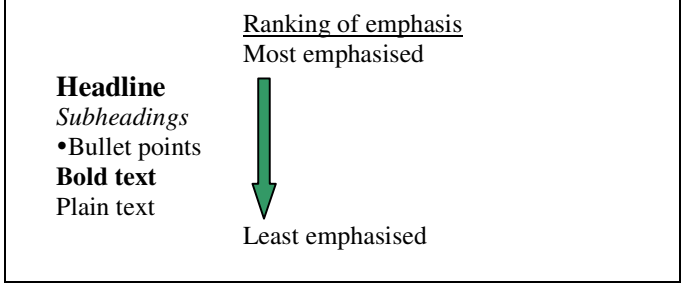
Emphasis as an impression management tool assumes that the reader notices the information emphasised more. Emphasis is analysed in three different ways in this study. Firstly the location/positioning of the disclosures are analysed, which analysis is also influenced by the visual presentation techniques used in displaying the disclosures (visual emphasis or degree of prominence). Secondly, the use of repetition to emphasise a number is analysed. Finally, the use of reinforcement to emphasise qualitative disclosures is analysed. This is the first time this impression management technique has been studied.

Empirical studies in accounting examined/investigated the importance of the location or the order in which information appears in company reports. Staw *et al*. (1983) investigate the location of positive and negative information in accounting narratives. Bowen *et al*. (2005) investigate the extent to which managers place performance metrics strategically within their earnings press releases. They compare the placement of two metrics: GAAP vs. pro forma information. Their results confirm that managers emphasise the metric that portrays better firm performance by giving that metric a more prominent location in the press release. Thus, the figure showing better performance (GAAP or non-GAAP figure) is more likely to appear in an earlier section (headline or first paragraph) of the press release, whereas the figure showing worse performance is buried down in the main body of the press release.

To analyse visual emphasis, sections of each press release are assigned three levels of emphasis: (1) most-emphasised, (2) next-most-emphasised and (3) least-emphasised (see Figure 3). This methodology is adapted from (Staw *et al.*, 1983; Bowen *et al.*, 2005). Visual emphasis is defined as the emphasis provided by prominent location/positioning (e.g., heading and subheadings), special character (e.g., bullet points), type of font (e.g., bold, italics, underlining, colour), or a combination of two or more of these (Figure 3 illustrates these varying degrees of prominence). Press releases do not have a standard presentation/format. For this reason, classification of disclosures between the three categories (most-emphasised, next-most-emphasised and least-emphasised) requires

judgement. Some press releases use explicit visual emphasis techniques while others do not. Where no visual emphasis is used, three levels of emphasis (most-emphasised, next-most-emphasised and least-emphasised) are defined by reference to the location/positioning of information in the press release following Bowen *et al*. (2005). The basic idea is that earlier text in press releases is given greater emphasis simply because it comes first. Paragraphs one and two are considered to be the most-emphasised, paragraphs three and four are the next-most-emphasised, and information after paragraph four is considered the least-emphasised. Press releases which use these emphasis techniques may include three degrees of visual emphasis: (a) a press release with only one form of emphasis (for example, headline) followed by plain text. In this case, the section of the press release with the visual emphasis is coded as the most-emphasised section while the methodology used by Bowen *et al.* (2005) is applied to the plain text. Therefore, the first and second paragraphs are coded as next-most-emphasised section, and the remainder of the text is coded as the least-emphasised section; (b) the text presents at least four (for example, headline, subheadings, bullet points and bold text) of the methods described in Figure 3. In this case, the headline is considered the most-emphasised section of the press release. Use of subheadings, bullet points or bold text is coded as next-most-emphasised section, and the plain text is coded as least-emphasised section of the press release; and (c) when either two or three methods of emphasis from those described in Figure 3 are used. In this situation, the highest of the four methods identified in Figure 3 is coded as most-emphasised section. Plain text is coded as the least-emphasised section of the press release and anything in between is the next-most-emphasised section of the press release.

**Figure 3: Visual emphasis or degree of prominence**



Emphasis – Location/positioning/presentation of qualitative information

Visual emphasis refers to the location or positioning of disclosures in the press release. Location/positioning may depend on whether the disclosure refers to positive or negative events or outcomes. For example, a company might want to include negative information in a less prominent location. Example 8 illustrates the approach taken in coding a press release into the three location/positioning categories (most-, next-most, least-emphasised). As shown in Example 8, even though *TDG Plc* is a bad news company, Positive Statement 1 (a positive statement by inclusion of a positive keyword) is the headline in the press release. Although two negative statements are included in the next-most-emphasised section of the press release, the positive statements are exaggerated by their inclusion in the headline. The two negative statements are under-stated by being located further down in the press release.

**Example 8: Different emphasis by location/positioning/visual presentation of positive/negative statements (*TDG Plc* ARPR 2000)**

| **Text** | **Location of text** |
|---|---|
| STRONG GROWTH[Keyword+1] IN CONTRACT LOGISTICS[Statement+1]<br>• Group turnover up[Keyword+2] 7% to £456 million (up[Keyword+3] 9% at constant exchange rates)[Statement+2]<br>• Excellent[Keyword+4] performance from core Contract Logistics business across Europe[Statement+3] – Turnover up[Keyword+5] 14%[Statement+4] and Operating profit up[Keyword+6] 18%[Statement+5] | Most-emphasised |
| • Profit reduction[Keyword–1] in Storage & Distribution due to first half decline[Keyword–2] in cold store utilisation.[Statement–1] Second half performance significantly improved[Keyword+7 Statement+6]<br>• Overall, headline profit before tax down[Keyword–3] 6% to £24.7 million[Statement–2]<br>• Final dividend increased[Keyword+8] by 5% to 7.4p, giving 12.4p for the year, up[Keyword+9] 5%[Statement+7]<br>• Announcement today of alliance with Eagle Global Logistics[Neutral statement] | Next-most-emphasised |
| David Garman, Chief Executive of TDG, commented:<br>'In December 1999, we announced a forward strategy to transform TDG from a predominantly UK and asset-based business, to a truly Europe-wide, solutions based provider of logistics services. Our results for the year reflect the significance[Keyword+10] and scale of our transformation during this transition period.[Statement+8]<br><br>We have demonstrated that we can grow[Keyword+11] our Contract Logistics businesses rapidly and profitably[Keyword+12 Statement+9]. We have also taken effective[Keyword+13] action to resolve issues in parts of our Storage & Distribution business.[Statement+10] We have a strong[Keyword+14] management team[Statement+11] who are focused on delivery, and I am looking forward to reporting on further progress[Keyword+15] in 2001.[Statement+12] | Least-emphasised |

Emphasis – Location/positioning/presentation of quantitative information

Most ARPRs studied disclose positive amounts in the most-emphasised section of the press release. Few of the press releases include one or more negative amounts in the most-emphasised section. In Example 9, *QXL ricardo plc* includes seven quantitative items. Although the company performed poorly (Losses after tax before minorities 2000/01: £(143.1) million; 1999/00: £(66.7) million), six of the seven disclosures are positive. Only one negative item (Quantitative item 7) is disclosed in the press release. This item is placed in the least-emphasised section after disclosure of all positive quantitative items.

**Example 9: Quantitative information and visual emphasis (*QXL ricardo plc* ARPR 2000)**

**Most-emphasised section**
No quantitative items included

**Next-most-emphasised section**

**Quantitative item 1: Positive quantitative item**
Growth in agency-based Gross Auction Value of 42%

**Quantitative item 2: Positive quantitative item**
Gross profit increased 35%

**Least-emphasised section**

**Quantitative item 3: Positive quantitative item**
A 319% increase in Gross Auction Value to £89.3 million for the year, compared to £21.3 million for the year ended 31 March 2000

**Quantitative item 4: Positive quantitative item**
Total members increased to 2.9 million at 31 March 2001, a 415% increase compared to 557,000 at 31 March 2000

**Quantitative item 5: Positive quantitative item**
Number of items listed for auction increased to 31.7 million for the year ended 31 March 2001, a 484% increase compared to 5.4 million for the year ended 31 March 2000

**Quantitative item 6: Positive quantitative item**
Gross profit up to £2.6 million, an increase of 258% over £741,000 for the year ended 31 March 2000

**Quantitative item 7: Negative quantitative item**
Trading loss of £49.4 million, compared to a loss of £32.8 million for the year ended 31 March 2000.

Emphasis – Repetition of qualitative information

Repetition of information can enhance the understandability of financial reports or it can add noise to the reporting process (Courtis, 1996). Courtis (1996) investigates the

presence of superfluous disclosures in Hong Kong annual reports by testing redundant disclosure (such as repetition) against some corporate attributes (size, profitability, risk and industrial grouping). For the purposes of this study, repetition is said to occur when a press release includes the same piece of information more than once. A statement is deemed to be repeated even where there is slight variation in one or two words in the two statements. This technique can be misleading for two reasons: (1) the press release is a short document (2 pages on average) and repetition of the same issue can cause the reader to focus on that specific issue while diverting attention from other issues in the press release and (2) this practice can be misleading if the manager repeats positive information but not negative or *vice versa*. An example of repetition of a statement has already been presented in Example 5 where a single piece of information (positive information) was repeated three times. Example 10 also illustrates this practice where substantial new business is emphasised by repetition. The reference to new business in the headline is exacerbated by two repetitions of this positive information. This suggests that it is not enough to look at individual impression management techniques in isolation. The interaction effects of using two or more impression management techniques at the one time must be considered.

**Example 10: Multiple repetition of positive statements (*Aegis Group plc* ARPR 2000)**

Headline
Record new business performance reflects effective strategy

First repetition in main body
Record new media business wins totalling $2,050 million (1999:$1,206 million)

Second repetition in main body
2000 was a good year for Aegis with a record $2 billion of new media business won during the year

Emphasis – Repetition of quantitative information

As is the case with qualitative information, repetition of quantitative information is also common practice. This consists of reiterating the same amount in the same press release. The three statements shown in Example 11 are included in different parts of the press release. The first one is in the headline. The second is the first repetition occurring in the main body of the press release. The third statement is the second repetition of the same quantitative item.

**Example 11: Repetition of quantitative items (*British Airways PLC* ARPR 2000)**

Headline
Full year profit of £150 million

First repetition in main body
Full year pre-tax profit of £150 million, up from £5 million a year ago

Second repetition in main body
British Airways today posted a pre-tax profit of £150 million for the 12 months ended March 31, 2001 (2000: £5 million)

Emphasis – Reinforcement of qualitative information

Reinforcement occurs when emphasis is added to a particular keyword by use of a qualifier. Although it is not a pervasive practice, its inclusion in this study is considered important as evidence of one of the disclosure practices used by managers when preparing their reports. This impression management technique has not been studied in prior literature. *TDG Plc* ARPR 2000 (Example 12), a bad news company (profit in current year lower than prior year), discloses four reinforcements. One of them (Reinforcement 3) is a double reinforcement where two qualifiers "rapidly" and "profitably" reinforce one positive keyword "grow". The other three are reinforcements of positive keywords. The words "strong" (Reinforcement 1), "significantly" (Reinforcement 2) and "further" (Reinforcement 4), reinforce the positive keywords "growth", "improved" and "progress", respectively.

**Example 12: Multiple reinforcement of positive keywords (*TDG Plc* ARPR 2000)**

Reinforcement 1: Reinforcement of positive keyword (headline)
Strong growth in contract logistics

Reinforcement 2: Reinforcement of positive keyword (main body)
Second half performance significantly improved

Reinforcement 3: Double reinforcement of positive keyword (main body)
We have demonstrated that we can grow our Contract Logistics businesses rapidly and profitably

Reinforcement 4: Reinforcement of positive keyword (main body)
I am looking forward to reporting on further progress in 2001

Another method falling within the technique of reinforcement of qualitative information is diminution of keywords. This occurs when a keyword is accompanied by a qualifier which lightens its effect. This practice is more likely to occur with negative keywords than with positive keywords. Example 13 illustrates this issue. The qualifier "a little" de-emphasises the negative connotation of the keyword "fallen".

**Example 13: Diminution of negative keywords (*Silentnight Holdings Plc* ARPR 2000)**

Since then demand has fallen a little, particularly for cabinet and upholstered furniture

In Example 14, the word "slightly" de-emphasises the word "ahead", showing that the company met its forecast, without exceeding it too much which might suggest inaccurate forecasting by the company.

**Example 14: Diminution of positive keywords (*Uniq plc* ARPR 2000)**

Profit before tax, exceptional items and goodwill amortisation of £57.5m, slightly ahead of profit forecast made in March 2001

*Analysis of performance comparisons in press releases*

Prior research has studied performance comparisons from the point of view of managers selecting performance comparisons that allow the best performance to be portrayed. We look at performance from a different perspective - as a means of reinforcing quantitative information in press releases. Quantitative information about performance can be provided in terms of monetary and non-monetary amounts. Non-monetary quantities are also coded, depending on their format/presentation, e.g., numbers, percentages. Percentages are used with benchmarks of company performance related to either prior period(s) or industry performance. Such benchmarks are commonly provided in press releases. The percentage might be disclosed on its own or together with a current year monetary amount.

Quantified monetary amounts with comparisons are classified into three categories – positive, negative and neutral amounts – depending on whether the amount highlighted has increased, decreased or remained unchanged by reference to the comparator. Performance comparisons are a form of emphasis in that they reinforce a quantitative amount. Reinforcement of quantitative items occurs when managers disclose: (1) a benchmark indicating the percentage change over the prior year together with the current year amount; or (2) the amount from the prior year together with the current year figure. The company can also choose to report both: a benchmark in the form of a percentage and the amount from the prior year together with the current year figure. The latter

represents double emphasis, whereas options (1) and (2) are single emphasis. Example 15 illustrates these practices.

**Example 15: Reinforcement of quantitative items: single emphasis (*Wolseley plc* ARPR 2000)**

Reinforcement including a benchmark in the form of percentage
Pre-tax profit before exceptionals and goodwill amortisation up 9.4% to £357.4 million

Reinforcement including prior year amount
£288 million (1999: £310 million) invested in acquisitions

Double emphasis allows the reader to cross-check the calculation and is more transparent, but less common. Categorisation into positive/negative amount is only possible where the comparative amount is provided in the ARPR itself (Hoskin *et al.*, 1986). Where categorisation into positive/negative is not possible, the amount is deemed to be neutral. In general, we expect management to disclose performance comparators that reflect the company's performance in a positive rather than negative light.

For example, *TDG Plc* includes six monetary and non-monetary disclosures in its press release, five of which are positive figures and only one negative. Quantitative item 1 in Example 16 is positive (increase in Group turnover). Quantitative items 2 and 3 show an increase in business segment turnover and operating profit. One negative quantitative item (Quantitative item 4) shows a decrease in headline profit before tax (before exceptional items and amortisation). In Quantitative items 5 and 6, final dividend and dividend for the year are shown to have increased by 5%.

**Example 16: Reinforcement of quantitative items included in the ARPR (*TDG Plc* ARPR 2000)**

Quantitative item 1: Reinforcement of positive quantitative item
Group turnover up 7% to £456 million

Quantitative items 2 and 3: Reinforcement of positive quantitative item (two quantitative items)
Excellent performance from core Contract Logistics business across Europe - turnover up 14% and operating profit up 18%

Quantitative item 4: Reinforcement of negative quantitative item
Headline profit before tax down 6% to £24.7 million

Quantitative items 5 and 6: Reinforcement of positive quantitative item (two quantitative items)
Final dividend increased by 5% to 7.7p, giving 12.4p for the year, up 5%

Use of comparisons is also illustrated in Example 6 earlier. Although *Wolseley plc* performed relatively poorly in 2000 (Profit after tax and minority interests 1999: £198.9 million; 2000: £193.5 million) the two performance numbers (profit and earnings per share) selected for disclosure show substantial increases against their prior year comparators.

Companies may be influenced in their use of reinforcement depending on whether the figures are positive or negative. For example, a company may disclose negative quantitative items without reinforcement but use reinforcement with positive amounts. British Vita (Profit after tax and minority interests 1999: £48.5 million, 2000: £43.3 million) performed relatively poorly in 2000. The annual report shows that the profit before tax for the current year was only £80.1 million compared with a prior year profit £84.6 million. In Example 17, *British Vita PLC* does not include a benchmark with the profit before tax amount disclosed, which hides or disguises the decrease in profit from the prior year.

**Example 17: No reinforcement of negative quantitative item (*British Vita PLC* ARPR 2000)**

Profit before Tax of £80.1m

*City North Group plc* also performed poorly in 2000 (Profit after tax and minority interests 1999: £1,768,000, 2000: £715,000). In Example 18, despite poor performance in 2000 compared with 1999, *City North Group plc* reports only positive amounts and all include a benchmark showing increases from prior year.

**Example 18: Reinforcement of positive quantitative items (*City North Group plc* ARPR 2000)**

Quantitative item 1: Reinforcement of positive quantitative item
Net assets up 22% to £62,400,000

Quantitative item 2: Reinforcement of positive quantitative item
Diluted net asset value per share up 21% to 278p

Quantitative item 3: Reinforcement of positive quantitative item
Rental income up 17% to £4,080,000

Quantitative item 4: Reinforcement of positive quantitative item
Operating profit up 17% to £2,390,000

Companies may disclose in the ARPR a current year amount that best portrays performance compared with a prior year benchmark. In Example 19, *National Grid plc* discloses profit before tax and exceptional items of £481.3m in its ARPR. This amount does not appear in the related group profit and loss account. The amount disclosed of £481.3m is calculated as the profit before exceptional items of £731.9m less net interest of £250.6m, both of which amounts do appear on the face of the group profit and loss account. Selecting this idiosyncratic amount of £481.3 allows *National Grid plc* to provide the best possible prior year comparative benchmark of £481.6m (Profit before exceptional items of £546.5m less Net interest of £64.9m) against which to compare the amount disclosed. This allows management to suggest in the ARPR that performance is "level" compared with the previous year. No other combination of current year and prior year profit amounts would portray as good a picture of *National Grid plc*'s performance.

**Example 19: Selectivity and benchmarking (*National Grid plc* ARPR 2001 & Annual Report 2000)**

**ARPR 2001**

Allowing for the higher interest expense, we held pre-tax profit before exceptional items and goodwill amortisation level at £481.3 million and increased earnings per share on the same basis by 9 per cent. We also had exceptional profits of over £470 million relating to the reduction in our holding in Energis.

**Extracts from Annual Report 2000**

| **Group profit and loss account for the years ending 31 March** | 2001 £m | 2000 £m | 1999 £m |
|---|---|---|---|
| Operating profit | | | |
| – Before exceptional integration costs and goodwill amortisation | 731.9 | 546.5 | 579.9 |
| – Exceptional integration costs | (45.3) | – | – |
| – Goodwill amortisation | (74.5) | (7.9) | (2.5) |
| Total operating profit – continuing operations | 612.1 | 538.6 | 577.4 |
| Exceptional profit relating to partial disposal of Energis | 242.9 | 1,027.3 | 891.8 |
| Profit on disposal of businesses | 20.1 | – | – |
| Net interest | (250.6) | | |
| Exceptional cost of closing out interest rate swaps | – | – | (52.6) |
| Profit on ordinary activities before taxation – continuing operations | 624.5 | 1,501.0 | 1,298.1 |
| Taxation | 149.6 | (352.6) | (283.1) |
| Profit on ordinary activities after taxation | 774.1 | 1,148.4 | 1,015.0 |
| | | | |
| Earnings per ordinary share | | | |
| – Basic, including exceptional items and goodwill amortisation | 52.1p | 78.0p | 69.2p |
| – Basic, excluding exceptional items and goodwill amortisation | 26.5p | 24.3p | 23.3p |
| – Diluted, including exceptional items and goodwill amortisation | 49.5p | 73.4p | 65.2p |
| – Diluted, excluding exceptional items and goodwill amortisation | 25.8p | 23.8p | 22.7p |

*Comparing disclosure of quantitative and qualitative information in ARPRs*

Companies can manipulate quantitative and qualitative information to create impressions. For example, a statement might include a negative quantitative item displayed in neutral terms (without showing the prior year amount). This negative quantitative item can even be shown in such a way as to be construed as a positive statement.

Skinner (1994) has found that companies are more likely to disclose positive information in quantitative format and negative information in qualitative format. Consistent with this finding, *Manganese Bronze Holdings PLC* includes four negative statements in its ARPR 2000 (Example 20). Each of these four statements is in narrative form, with no quantitative negative items being disclosed.

**Example 20: Negative information in qualitative format (*Manganese Bronze Holdings PLC* ARPR 2000)**

| | |
|---|---|
| Negative statement 1: | Components Division continued to suffer losses |
| Negative statement 2: | However, increased production costs have led to reduced margins |
| Negative statement 3: | The Components Division again lost money mainly affected by a shortage of sales of sintered components to the motor industry |
| Negative statement 4: | If market conditions remain as at present we expect lower profits for our Vehicles Division in the current year |

Companies may also disclose negative items in a neutral way. For example, Stagecoach is classified as a bad news company (Profit / (loss) after tax and before minority interests 1999: £38 million; 2000: (£332) million). *Stagecoach Group plc* ARPR 2000 (Example 21) includes positive information in quantitative and qualitative format and a negative item as part of a neutral statement.

**Example 21: Qualitative and quantitative information (*Stagecoach Group plc* ARPR 2000/2001)**

Positive statement and positive quantitative item
Turnover excluding discontinued operations £2,067.3 million, up 17.4%

Neutral statement and negative quantitative item
Profit before tax, goodwill amortisation and exceptional items £122.9 million (2000: £244.3 million)

*Impact of range of impression management techniques*

The 21 examples in this paper, together with Appendix 1, illustrate the myriad of techniques adopted by companies to present company performance in their narrative reports. It is only possible to obtain a fuller picture of reporting practices by considering these techniques together.

Section 4 of the paper develops the qualitative and quantitative measures of impression management into two composite impression management scores using the four qualitative measures ((i) Thematic – keywords and phrases – number of positive; number of negative; (ii) Emphasis – Location; (iii) Emphasis – Repetition and (iv) Emphasis – Reinforcement) and the five quantitative measures discussed earlier ((i) Disclosure of quantitative performance monetary and non-monetary amounts; (ii) Selectivity; (iii) Emphasis – Location; (iv) Emphasis – Repetition and (v) Performance comparisons).

## 4. Constructing a composite impression management score

Composite scores – unweighted or weighted averages of a number of underlying variables – are common in research, e.g., Altman Z-score, disclosure indices, governance scores. The justification for using such scores is that one metric alone can give a misleading picture. Equally, it is difficult to reduce complex corporate processes to a single measure. Our thesis is that impression management should be measured in a holistic manner, and not merely by using a single measure of impression management. Thus, we have devised two synthesised measures resulting in two composite impression management scores based on the four qualitative/five quantitative measures referred to above. Beattie *et al.* (2004) also develop a holistic measure for analysing narratives in annual reports. They use computer-assisted methods for implementing their four-dimensional framework for holistic content analysis of accounting narratives.

*Calculation of composite impression management scores for qualitative disclosures*

The qualitative composite impression management score is based on either (i) keywords or (ii) statements, combined with evidence of three types of emphasis (location/positioning, repetition, reinforcement). Only repetition of statements can be measured. Measurement of repetition of keywords is not feasible. A press release can include/repeat the same keyword throughout the document without representing

repetition of the same issue. For example, Millennium & Copthorne Hotels PLC ARPR 2000 includes the positive keyword "*progress*" in the following statements: "*Significant progress in integrating acquisitions*" and "*Good progress with planned disposal of non-core assets in US*". Although the positive keyword "*progress*" is repeated, it refers to different issues. It would not make sense to consider repetition of this keyword (and other keywords) as repetition. In addition, only reinforcement of keywords can be measured. Measuring reinforcement of statements is not practicable. As we define reinforcement as emphasis added to a particular keyword using a qualifier, we cannot apply this to a statement or sentence. The emphasis is put on an individual keyword.

Disclosures are made in a hierarchical manner, and the qualitative composite impression management score includes weightings to capture this hierarchy. Weighting systems are common in research but there is no method that is universally accepted. Such weightings are subjective. It is highly questionable how to weight different elements in a composite impression management score. To take account of this subjectivity, it is recommended that the weightings be varied in empirical research using a composite impression management score, and that empirical results be subjected to sensitivity analysis to check whether variations in the weightings influence the results. Prior research using weighted and unweighted/naïve disclosure models arrived at similar results (e.g. Chow and Wong-Boren, 1987; Cooke, 1989; Botosan, 1997; Zarzeski, 1996; Riahi-Belkaoui, 1999).

Table 4 summarises the weightings to be applied and the resulting calculation of qualitative composite impression management scores. Weightings in this context are summative, not multiplicative. Each keyword/statement is given a weighting of 1.0. If the keyword/statement appears in the most-emphasised section, a weighting of 1.0 is added; for the next-most emphasised section a weighting of 0.5 is added; the least-emphasised section attracts no weighting. If the keyword is reinforced a weighting of 0.5 is added. If the statement is repeated, a weighting of 0.5 is added. Gordon *et al*. (2007) also aggregate individual elements in calculating a composite score for management credibility and for restatement announcement characteristics. Similar to the method in this paper, they apply a combination of weightings of 1.0 and 0.5 for elements of their aggregated composite score.

Applying these weightings, the resulting qualitative composite impression management score will vary from a maximum of 2.5 (e.g., where a keyword is included in the most-emphasised section of the ARPR, the statement of which it is part is repeated and the keyword is reinforced) to a minimum of 1.0 (e.g., where a keyword is included in the least-emphasised section of the ARPR and is not reinforced, and the statement of which it is part is not repeated).

**Table 4: Method for calculating qualitative composite impression management scores for keywords/statements**

| **Measure** | **Weighting** |
|---|---|
| (i) Thematic – keywords/statements | 1.0 |
| (ii) Emphasis – Location: Most-, next-most, least-emphasised | 1.0/0.5/0.0 |
| (iii) Emphasis – Repetition (Statements only) | 0.5 |
| (iv) Emphasis – Reinforcement (Keywords only) | 0.5 |
| | |
| Maximum possible composite score per keyword/statement | 2.5 |
| Minimum possible composite score per keyword/statement | 1.0 |

Note: the score will be either positive (+) or negative (-) depending on whether the keyword is positive/negative

*Calculation of composite impression management scores for quantitative disclosures*

In the first instance, quantitative disclosures in ARPRs are given a score of 1.0. The score is then adjusted for similar reasons to those applying to qualitative scores.

In addition to the effects of location and repetition, the quantitative composite impression management score varies depending on whether selectivity is measured in respect of the quantitative amount. Similar to reinforcement of statements, measurement of reinforcement of quantitative amounts is not feasible.

Table 5 summarises the weightings to be applied, and the resulting calculation of quantitative composite impression management scores. Each quantitative amount identified in the ARPR is given a weighting of 1.0. If the quantitative amount is selected from a range of possible numbers in the profit and loss account, a weighting is added depending on the ranking within the profit and loss account of the amount selected.

If the quantitative amount is selected from the profit and loss account, it is ranked depending on whether the amount selected is in the highest/medium/lowest category of amounts from which selection can be made. A weighting of 1.0 is provided for highest category; for the medium category a weighting of only 0.5 is added. The lowest category attracts no weighting.

If the quantitative amount appears in the most-emphasised section of the ARPR, a weighting of one is added; for the next-most emphasised section a weighting of 0.5 is added; the least-emphasised section attracts no weighting.

If the quantitative amount is accompanied by a performance comparison, an additional weighting of 0.5 is added.

If the quantitative amount is repeated, an additional weighting of 0.5 is added.

Applying these weightings, the resulting quantitative composite impression management score will vary from a maximum of 4.0 to a minimum of 1.0. As with keywords and statements, "positive" and "negative" numbers disclosed retain their + and – descriptive tags.

*Using composite impression management scores to measure bias*

In addition to measuring impression management, the composite impression management scores can relatively easily be extended to provide a measure of bias. The impression management bias score captures the extent impression management is biased toward good news /optimistic language/ tone. Thus, qualitative and quantitative composite impression management scores could be further manipulated to capture a measurement for bias inherent in impression management, resulting in an impression management bias score. The impression management bias score is an index and comprises the difference between the total composite impression management scores for all positive keywords/statements/quantitative amounts minus the total composite impression management score for all negative keywords/statements/quantitative amounts, divided by the total composite impression management scores for all keywords/statements/

quantitative amounts. The impression management bias score can be expressed as follows:

$$\frac{\text{P IM Score - N IM Score}}{\text{P IM Score + N IM Score}}$$

Where P IM Score = total positive impression management score for a press release

N IM Score = total negative impression management score for a press release

Tetlock *et al*. (2008) compute a simple quantitative measure of language (in newspaper articles) to investigate whether such measures have incremental explanatory power for firms' future earnings and stock returns. Their primary measure to quantify the language used in financial newspapers is the fraction of negative words in a news story. However, they also calculate other variations of the measure based on the differences between positive and negative words divided by the total positive and negative words in the newspaper article. Henry (2008) calculates Tone as the count of positive words minus negative words, divided by the sum of positive and negative word counts. Thus, their methods are similar to the measure of bias proposed in this study.

The impression management bias score /index is illustrated in Table 6. The impression management measures for quantitative disclosures set out in Table 5 are applied in Table 6. For simplicity, only quantitative disclosures are used and no repetition, selectivity or performance comparison is assumed. The table assumes that seven positive quantitative amounts and three negative quantitative amounts are disclosed in the press release. The negative disclosures are located in the least-emphasised location in the press release, while the positive disclosures appear throughout the press release. The impression management bias score is measured at +0.57. A score of zero means no bias, and a score of +1 mean positive bias only, there being no negative disclosures. Thus, an impression management bias score of +0.57 suggests strong positive impression management bias (almost 60 per cent of the maximum possible positive bias of +1.0).

**Table 5: Method for calculating quantitative composite impression management scores for amounts**

| Measure | Selectivity applies Weighting | No selectivity Weighting |
|---|---|---|
| (i) Disclosure of quantitative performance monetary and non-monetary amounts | 1.0 | 1.0 |
| (ii) Selectivity - highest/medium/lowest category of amounts from which selection can be made | 1.0/0.5/0.0 | |
| (iii) Emphasis – Location: Most-, next-most, least-emphasised | 1.0/0.5/0.0 | 1.0/0.5/0.0 |
| (iv) Emphasis – Repetition | 0.5 | 0.5 |
| (v) Performance comparisons | 0.5 | 0.5 |
| Maximum possible composite score per quantitative amount | 4.0 | 3.0 |
| Minimum possible composite score per quantitative amount | 1.0 | 1.0 |

Note: the scores will be either positive (+) or negative (-) depending on whether the amount is positive/negative

**Table 6: Calculating bias using quantitative disclosures**

**Scenario**
Assume the press release on which this example is based has disclosed seven positive quantitative amounts and three negative quantitative amounts. Three positive quantitative amounts are located in the first paragraph (i.e., most-emphasised location) of the press release. Two positive quantitative amounts are located in the middle of the press release (i.e., next-most-emphasised location), while the remaining two positive quantitative amounts and the three negative quantitative amounts are in the last paragraph (i.e., least-emphasised location) of the press release. For simplicity, the press release contains no repetition of quantitative amounts, no selectivity and includes no performance comparisons.

| Measure | Positive amount | Negative amounts | Total amounts |
|---|---|---|---|
| ① Number of quantitative disclosures | 7 | 3 | 10 |
| ② Composite impression management score | **Positive score** | **Negative score** | **Total score** |
| (1) Disclosure of quantitative performance monetary and non-monetary amounts | 7 | 3 | 10 |
| (2)(a) Emphasis – Location: | | | |
| - Most | 3 x 1 | 0 | 3 |
| - Next-most | 2 x 0.5 | 0 | 1 |
| - Least-emphasised | 2 x 0.0 | 3 x 0.0 | 0 |
| (2)(b) Emphasis – Repetition | 0 | 0 | 0 |
| (3) Performance comparisons | 0 | 0 | 0 |
| (4) Selectivity - highest/medium/lowest category of amounts from which selection can be made | 0 | 0 | 0 |
| Total composite impression management score | 11 | 3 | 14 |

③Bias score

$11_{\text{Positive composite score}} - 3_{\text{Negative composite score}} = 8_{\text{Net positive composite score}} / 14_{\text{Total composite score}} = +0.57$

Key: +1 = completely positively biased; –1 = completely negatively biased; 0 = no bias

## 5. Summary and Conclusions

Having critiqued research on impression management methods in prior financial reporting research, this paper developed and refined the measurement of four less-researched impression management techniques and illustrated these with examples from press releases. By investigating four impression management techniques in a single paper the evidence is more complete than in prior studies.

Consistent with prior research findings, impression management in financial reporting narrative disclosures is found, with multiple methods of exercising impression management in evidence. Company managers have many and varied opportunities to influence user impressions. While this research is not systematic, and therefore not generalisable to a population, it nonetheless highlights for future researchers the importance of considering multiple methodologies and more holistic approaches to content analysis of narrative disclosures in pursuit of evidence of impression management.

*Limitations of the research*

This research is entirely focused on the supply-side, i.e., impression management techniques used by management. The demand-side, the users' perspective, is not considered. The key question, does impression management matter, is not addressed. For example, we do not know whether users are influenced by these techniques, we do not know how users' perceptions are changed by impression management, we do not know whether users discount or disregard impression management in corporate communications. Some limitations of our research methods have been mentioned earlier.

The 21 examples in the paper are drawn from UK press releases for the year 2000. Although these examples are aging, we have no reason to believe they are not representative of corporate practice now as well as in the year 2000.

The methodology in this paper recognises that in practice multiple impression management methods are used simultaneously. Studying four impression management methods simultaneously extends and improves on the prior literature. However, the methodology does not include all seven impression management methods. There are

opportunities in the future for extending the methodology to encompass all seven impression management methods.

Difficulties in achieving consistency of coding when analysing qualitative data with linguistic subtleties have been referred to in Section 3. Moreover, the coding rules were prepared and revised by one of the coders. In addition, although the coding rules were re-written after coding differences between the two coders emerged, the re-written codes should have been re-tested using additional coders to ensure the guidelines were clear.

*Suggestions for future research*

The methodology set out in this paper provides researchers with tools to examine multiple impression management methods simultaneously. A question central to impression management research is whether the use of impression management varies depending on firm performance. Or in other words, is there evidence of biased financial reporting, contrary to desirable qualities of good financial reporting as expressed in conceptual frameworks for financial reporting? The development of a impression management bias score to measure bias arising from the use of impression management provides researchers with a method to address this issue.

The development of a composite impression management score provides a tool for comparative research. Composite impression management scores could be computed for narrative reporting practices across firms, within the same firm over time, across industry sectors, in different disclosure vehicles, and in different jurisdictions.

The use of press releases by business journalists is another avenue for enquiry. Do journalists reproduce narrative disclosures word-for-word from press releases? Comparisons of narrative disclosures in press releases with their reproduction in the financial press, using methodologies described in this paper, has rich potential.

To conclude, the methods developed offer an extension of measurement techniques to enhance impression management research in the future to address the many un-researched issues thereon.

**Endnotes**

[1] The coding rules comprise the following: (1) Coding rules for second coder; (2) Illustration of qualitative coding of a press release; (3) Illustration of quantitative coding of a press release; (4) List of positive keywords used in the research; (5) List of negative keywords used in the research. These documents are available from the authors on request.

[2] A weakness of the methodology is that the coding rules were prepared and revised by one of the coders. It would have been better to have stricter delineation (following Krippendorff, 1980) between the guideline-setter and the coders to ensure reliability of outcomes.

[3] Henry (2008) includes 6 positive words not in the word list in this paper: certain, definitive, delivers, rewards, enjoy, beat. There are 12 negative words not included in the word list: hurdle, obstacle, slump, uncertain, unsettled, risk, threat, penalty, drop, shrink, below, under.

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## Appendix 1: Selection of amounts from the P&L account (*Wolseley plc* Annual Report 2000)

**GROUP PROFIT & LOSS ACCOUNT – year ended 31 July 2000**

| | | | 2000 £m | | 1999 £m | |
|---|---|---|---|---|---|---|
| **Turnover** | | | | | | |
| Continuing operations | | | 5,782.6 | | 5,245.3 | |
| Acquisitions | | | 429.7 | | - | |
| | | | 6,212.3 | | 5,245.3 | |
| Discontinued activities | | | 191.1 | | 259.7 | |
| | | | 6,403.4 | | 5,505.0 | **Increase over** |
| **Costs less other income** | | | (6,030.2) | | (5,191.9) | **prior year** |
| Trading profit before goodwill amortisation and exceptionals | ❶ | 385.7 | | 330.2 | | +16.8% |
| Exceptional items | | - | | (11.6) | | |
| | ❷ | 385.7 | | 318.6 | | +21.1% |
| Goodwill amortisation | | (12.5) | | (5.5) | | |
| **Operating profit** | | | | | | |
| Continuing operations | ❺ | 338.1 | | 290.5 | | +16.4% |
| Acquisitions | | 20.3 | | - | | |
| | ❹ | 358.4 | | 290.5 | | +23.4% |
| Discounted activities | | 14.8 | | 22.6 | | |
| **Operating profit** | ➔❸ | | 373.2 | | 313.1 | +19.2% |
| Loss on disposal of operations | | | (42.6) | | (3.1) | |
| **Profit on ordinary activities before interest** | ❻ | | 330.6 | | 310.0 | +6.6% |
| Net interest payable | | | (28.3) | | (3.6) | |
| Profit on ordinary activities before tax | ❼ | | 302.3 | | 306.4 | Decrease |
| **Taxation** | | | | | | |
| Ordinary activities | | | (114.4) | | (107.7) | |
| Exceptional credit | | | 6.0 | | 0.7 | |
| | | | (108.4) | | (107.0) | |
| Profit after tax | ❽ | | 193.9 | | 199.4 | Decrease |
| Monitory interests | | | (0.4) | | (0.5) | |
| **Profits for the year attributable to ordinary shareholders** | ❾ | | 193.5 | | 198.9 | Decrease |
| Dividends | | | (88.3) | | (78.9) | |
| Profits retained | ❿ | | 105.2 | | 120.0 | Decrease |
| **Earnings per share** | | | | | | |
| Before goodwill amortisation and exceptionals | ➔① | | 42.26p | | 38.08p | +11% |
| Goodwill amortisation | | | (2.17p) | | (0.96p) | |
| Exceptionals | | | (6.38p) | | (2.43p) | |
| Basic earnings per share | ② | | 33.71p | | 34.69p | Decrease |
| Diluted earnings per share | ③ | | 33.67p | | 34.65p | Decrease |

*Key:*

➔: This amount was selected for inclusion in the press release

❶-❿: Numbers to identify the total possible profit/earnings per share amounts from which to select for disclosure in the press release, ranked in order of size