MEASURING CORPORATE IMAGE IN THE PRINT MEDIA:

AN APPLICATION OF MULTIDIMENSIONAL SCALING AND CONTENT

ANALYSIS METHODOLOGIES

by

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Measuring Corporate Image in the Print Media: An Application of

Multidimensional Scaling and Content Analysis Methodologies

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ABSTRACT

Corporate image can affect the attitudes and subsequent behaviours of a firm's relevant stakeholders. A positive corporate image may lead investors to invest, customers to purchase, employees to seek employment, and the government to legislate in a favourable manner. A less successful corporate image, on the other hand, may lead to undesirable stakeholder behaviours. Corporate image can be managed. First it must be monitored and measured. This paper presents an approach to image measurement that combines formerly divergent literatures. The organization theory issues of corporate image and strategy are combined with the communications issues of agenda setting, content analysis, and public relations, as well as the marketing issue of image measurement. The image measurement technique presented here utilizes the methodological techniques of content analysis, multidimensional scaling, and card sort. This technique is demonstrated through an analysis of newspaper articles, written over a 15 year period, about a large Canadian forestry company -- a company that is characterized by a local media focus. This study is based on the assumption that media reports are an 'information proxy.' During the formation of images, such information proxies may be a source of information that is a substitute for direct experience with organizations. Facets of this company's image, as transmitted by the media, have been identified. These include issues such as environmentalism, economic performance, news 'spikes,' and labour relations. Implications for image management are discussed.

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Introduction: Corporate Image and its Importance

The *image* of companies has been of interest ever since it was noted that organizations, like people, have 'personalities' (Martineau, 1958). Image is a conception of, or an attitude about a focal 'attitude' object. *Corporate image* is important to managers because it can affect their company's bottom line. Corporate image is one source of information that stakeholders use to form beliefs about a company. Beliefs in turn, have been shown to affect behaviour (Fishbein & Ajzen, 1975). In practical terms, a poor image can result in the loss of customers, investors, and potential employees. This importance is magnified at a time when stakeholders are increasing their scrutiny of big business, and are demanding more accountability (Kekst & Freitag, 1991; Raucher, 1990). Changes in the business climate in the last two decades have made public opinion a critical factor impacting business success (Evans, 1987).

Print media are a primary source of information from which organizational images are formed. While this is not the only source, it is one of the major sources of business news, and one that is accessed by a broad spectrum of stakeholders. For company managers, it is potentially problematic that the information transmitted in the media may not be objective, unbiased, or complete. The information used is selective, and therefore has an agenda-setting function to help determine the focal issues for both corporation officials and different stakeholder groups (McCombs & Shaw, 1972). Print media have the capacity to make certain issues more salient than others. In other words, the press is an imperfect purveyor of an organization's objective reality to the general public.

Since media have the ability to shape corporate image through an agenda setting process, and since this image does not always reflect objective reality, it is important for companies to strategically manage their image. In fact, image management should be considered an organizational process on par with production and marketing. But image cannot be managed until it is first understood and defined. As such, a valid and reliable *image measurement technique* is necessary. An understanding of an organization's current image is the first step in understanding which steps to take in an image management program.

The purpose of this thesis is to explore the nature of organizational image as viewed through print media. It will be argued that messages presented within print media are a major source of information used by organizational stakeholders. After defining image and explicating its importance, current image measurement methodologies will be discussed. A method of measuring corporate image as portrayed in print media is proposed. This method has its foundations in past image measurement research. It combines content analysis and multidimensional scaling, and has the strength of high validity and reliability. This image measurement methodology will be demonstrated with a case study. Suggestions for image management, and directions for future research will also be discussed.

Importance of Image

Before defining the concept of corporate image, it is worthwhile to be aware of its relevance to managers. Image is an entity of substantial importance. Organizations need to be

concerned about their image because of its potential effect on success or failure. Image can impact the attainment of goals, and therefore, the corporate bottom line.

Corporate image is a source of information about a firm, which may be used to form perceptions and beliefs. Most members of corporate communities do not have the opportunity to interact directly with corporations, and thus depend on a proxy of direct observation to form attitudes and beliefs about companies. Inherently lacking information about company activities, stakeholders use corporate image to form attitudes and beliefs, which can in turn affect behaviour (Fishbein & Ajzen, 1975). In practical terms, a negative carries a cost. It may cost a firm the loss of investors, customers, and key employees. Similarly, governments may enact legislation counter to the interests of firms with negative images.

On the other hand, a positive image can help an organization by attracting the people and resources necessary for success (Chajet, 1989). A positive image can increase the interest of investors (Ferris & Newman, 1991; Fombrun & Shanley, 1990). It can help enhance access to capital markets, and lower the cost of capital (Sobol, Farrelly & Taper, 1992; Fombrun & Shanley, 1990). Further, high quality employees may be attracted to firms with positive images (Gatewood, Gowan & Lautenschlager, 1993), and may have increased morale after hire (Garbett, 1988). Importantly, product sales can be improved by way of positive image (Garbett, 1988; Dann, 1991; Marken, 1990). A positive image may even gain favourable treatment from government bodies (Garbett, 1988). In short, image plays a key role in

stakeholder behaviour, and thus has the potential to affect a firm's bottom line.

Image Defined

Image is the character attributed to a person or thing (Sobol, Farrelly & Taper, 1992). It is a person's conception of an 'attitude object.' Several different definitions reveal multiple issues related to image: its perceptual nature; its information foundation; its potential plurality; its content; and its structure.

One of the most fundamental features of image is its perceptual nature. Image exists in the minds of people (Chajet & Shachtman, 1991). It is perception based, because image deals with thought patterns and evoked associations (Marken, 1990). Individuals scan 'objective reality' for information on which to base their 'subjective realities.' This implies that image is imputed as opposed to inherent or real; it is not necessarily a reflection of objective reality (Bromley, 1993).

A second issue is that images are formed on the basis of information. In fact, image is said to be comprised of an informational bedrock (Fombrun & Shanley, 1990). Stakeholders use ambiguous informational signals to gauge a firm's relative merits. These information signals come from a variety of sources, including financial markets, the media, education, and other 'symbol producing sectors' (Bromley, 1993). Such information is processed into images, which function to facilitate a person's thinking and behaviour relative to the attitude object (Dowling, 1993). The information used, however, is selective, so is not necessarily complete.

All available information in the objective world is typically not used, and the information used may not be accurate. As such, the image of a single item will vary according to individuals' idiosyncratic information selection processes.

A third feature of image is that an organization may have multiple images (Alvesson & Berg, 1992; Bromley, 1993). Image has been defined as an idiosyncratic cognitive configuration (Mazursky & Jacoby, 1986), which implies uniqueness in each individual's image of a single item. Since different people form different subjective images, different groups of people are likely to harbour different images, even of the same company (Dowling, 1993). Each stakeholder will have different criteria for organizational performance, and will thus seek different informational cues in order to formulate their images (Fombrun & Shanley, 1990). Although this paper refers to corporate image in singular, it should be noted that the possibility of multiple images is implicit in this usage. Two final points worth mentioning are that images may be weak or nonexistent (Oxenfeldt, 1974-5; Reilly, 1990), and that images can change over time (Bromley, 1993; Alvesson & Berg, 1992).

The content of image is a fourth issue. Image conceptions can contain both cognitive and affective facets, but in many instances, they are merely cognitive, with no affective component (Mazursky & Jacoby, 1986). Image has been defined as a "loose structure of knowledge, belief, and feelings" (Cohen, 1963: 48), which implies the potential for both cognitive and affective components.

Structure of image is a fifth feature. Traditionally, researchers have been interested in various individual components, or facets, of image. Recent literature, however, supports the notion that there is more to image than a list of attributes. It has been noted that image may be a more holistic entity (Keaveney & Hunt, 1992); that is, an overall impression (Dichter, 1985) or a composite (Oxenfeldt, 1974-5). Image may be more than a sum of its parts. Another structural feature of image is that some facets may be core, and others peripheral (Bromley, 1993; Mazursky & Jacoby, 1986). Core facets are more central to image, and contribute more to shaping overall impressions. Peripheral facets, on the other hand, are less impacting.

In sum, image is a conception of a focal attitude object. Image is perceptual in nature; it exists idiosyncratically in the minds of people. Image is based on an informational bedrock that is acquired from multiple sources. Information is used selectively, and is potentially incomplete and inaccurate. The content of image may be cognitive and/or affective. The structure of image has traditionally been viewed of as the combination of many individual attributes, but is increasingly being viewed in a more holistic manner. Finally, there may be differential weight given to different image facets, some being core, and others peripheral. Given that image is perception based, information is a central issue.

Image and Information

It has been noted that information is an inherent part of image. Image is a perception that occurs within the mind of individuals based on information that is received and processed.

Stakeholders of a company consist of individuals that actively seek out relevant information. Investors need to be apprised of the financial viability of an organization. Customers are interested in product and service quality, and corporate social responsibility. Employees seek information about firms as employers. Government agents, too, are stakeholders, and look for cues about the impact of companies on the surrounding community.

Information about these issues is available from a variety of sources. Stakeholders seek objectively true information, and the ideal way to obtain this is through direct experience with a company. Since this is generally not feasible, and since information offered by organizations is generally received with cynicism and mistrust, other 'monitors' (Fombrun & Shanley, 1990) or 'symbol-producing sectors' (Bromley, 1993) must be relied on. These include financial markets, mass media, government, and education. Of these, print media are an important source for acquiring business images because of wide access by multiple stakeholders. Also, of all media, print media have the strongest focus on business news. While this is not the only source of information on which company images are formed, it is one of the major sources of business news. Print media information serves as a proxy of direct experience with an organization, and is important because information that is available at a given time affects both perception (Gatewood, Gowan & Lautenschlager, 1993) and behaviour, at least in the period of initial exposure (Watt & Van den Berg, 1981).

Image, the Media, and Agenda-Setting

For company management, it is potentially problematic that the information transmitted in print media is not objective, unbiased, or complete. Information transmitted in the newspaper medium is selective, as only 15% of the material available on a given day is used (McCombs & Shaw, 1972). Media shape and filter information, often based on perceived newsworthiness. For example, issues that involve controversy, debate, and several actors make better stories than mere listings of events (Weaver & Elliott, 1985). Reporters and editors actively filter information in their role as gatekeepers (Gandy, 1991). Some issues are emphasized, while others are downplayed. This leaves considerable latitude for selection among minor news items. Information in the media, therefore, is an imperfect reproduction of the objective world (Turk, 1991).

Because of their selective, biased nature, news media perform two agenda-setting functions: (a) to lay out the issues that are important, and (b) to set the level of importance of each (McCombs & Shaw, 1972). In many cases, the mass media is the only link that people have to an organization, so information that is transmitted may be the only information on which their perceptions are based. Issues portrayed have been shown to correlate highly with issues deemed salient by the public (Benton & Frazier, 1991; Smith, 1991), which lends support to the existence of a media agenda-setting function.

Since news media have the ability to shape the public agenda by filtering objective reality via an agenda-setting process, the nature of an organization's image is likely to be affected by the

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information that passes through the filter in transmission to relevant stakeholders. This is important, because the way that issues are framed has an impact on the way that people think about them, and this in turn can affect subsequent behaviours (McCombs & Shaw, 1993). Given the importance of stakeholder behaviour to the bottom line, it is crucial that companies manage their images. Image cannot, however, be managed until it is first understood and defined. A valid and reliable image measurement method is therefore necessary. This paper demonstrates the use of a method of measuring corporate image as portrayed in newspaper and magazine print media. This methodology has as its foundation methods previously used in the fields of marketing and communications. It involves content analysis, multidimensional scaling, and card sort. The contribution of this method will be explicated after other image measurement methodologies are described.

Literature Review: How Image has been Measured in the Past

A review of the literature reveals that image work has been primarily restricted to the marketing field. Image issues of interest in this realm include product image, brand image, and retail store image. Two separate reviews of image measurement research (Dowling, 1988; Carlivati, 1990) identify several methodologies that can be classified as either attribute-based measures or nonattribute measures.

Attribute-based Marketing Methods

Attribute-based methods, or 'judgment methods,' entail presenting respondents with the

attributes of interest, and asking them to rate the product, brand, or store of interest along these predetermined dimensions. For example, respondents might be asked to rate a specified brand along the image dimension, 'high quality.' Several methodologies are attribute-based because the image dimensions of interest to the researcher are presented to respondents, who merely rate the attitude object along these dimensions. Attribute-based measurement methods include scales, item lists, and Q-sorts.

Scales and item lists. Different types of scales have been commonly used to measure the image of products, brands, and retail stores. There are several different types of scales. The semantic differential scale has subjects rate the 'attitude object' along several itemized rating scales bounded at each end by a pair of bipolar adjectives. The Stapel scale is a unipolar scale that involves the rating of a single adjective on a plus minus scale of numbers (thus measuring direction and intensity). The Likert scale has subjects indicate the degree of their agreement or disagreement with each of several statements about the attitude object.

Other scales include the graphic positioning scale, the brand-anchored conjoint scale (Louviere & Johnson, 1990), and the numeric comparative scale (Golden & Zimmer, 1987). The graphic positioning scale asks respondents to mark their perceived positioning of an object along a continuum (Emory & Cooper, 1991). The brand-anchored conjoint scale involves identifying the contribution of each attribute to the consumers's overall evaluation; it gauges the utility of different attributes (Emory & Cooper, 1991). The numeric comparative scale involves asking subjects to compare an object against some standard

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(Emory & Cooper, 1991). All of these scales involve rating the focal object on a predetermined set of attributes. Checklists are similar to scales, as subjects mark off all of the items in a list that they feel apply to the attitude object.

Q-sorts. Q-sorts have also been used in image studies. Subjects are given cards containing statements about an attitude object. They are asked to sort the cards, according to their salience, into a set of nine normally distributed groups that range from 'strongly agree' to 'strongly disagree.' The nine groups should constitute a normal distribution, with the appropriate percentage of statements being allotted to each of the nine groups. The group corresponding to the middle of the scale would have the highest percentage, consistent with a normal distribution. Similarly, each of the groups to the right and left of the scale centre would have decreasing percentages. This is similar to a Likert scale, but Q-sort's use of the normal distribution forces respondents to rank the salience of attitude object descriptors.

The fundamental strength of attribute-based measurement methods is that they standardize subjects' responses, and have high reliability, or consistency (Zimmer & Golden, 1988). Scales offer the following advantages: they are simple to use; data is easy to analyze; many different attributes can be explored at once; and multiple attitude objects can be compared (Bromley, 1993). The fundamental weakness is the forced choice aspect. Construct validity, which is the extent to which a measure relates to other theoretically consistent measures (Carmines & Zeller, 1979), is threatened because the attributes that are explored are not necessarily the ones that subjects would freely choose (Davis, 1991). In the absence of a

fixed list of attributes, subjects might not include some attributes that were given, or might add others that were not. This means that attribute-based methods force respondents to judge objects along attributes that the researcher deems to be relevant, even when these attributes are not deemed relevant by respondents. Another limitation of attribute-based methods is that arriving at a meaningful list of items can be time consuming because of the need to pretest, or to utilize focus groups to arrive at the set of items. Another issue is that it is unclear how to interpret and analyze 'I don't know' responses (Zimmer & Golden, 1988).

Nonattribute Marketing Measures

The second class of image measurement techniques is nonattribute-based, or 'response' methods. These differ from attribute-based methods in that respondents are not given a fixed list of attributes; rather, different methods exist for collecting uncued information. This uncued data is then analyzed for what it implies about the image of a focal object. Nonattribute-based methods of image measurement include open-ended questions, multidimensional scaling, projection techniques, and repertory grids.

Open-ended Questions. The open-ended question technique involves asking subjects to talk about the attitude object. The unstructured interview is one version of this, where interviewers ask nondirective questions, and allow respondents to discuss what the object means to them (Davis, 1991). A variation on this was used in a study that asked subjects to specifically describe the *image* of the focal object (Zimmer & Golden, 1988). This was argued to be an improvement over asking respondents to describe the focal object, because

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image was specifically requested. The data was content analyzed for themes, which were then aggregated into broader categories to get a final list of image dimensions.

Multidimensional scaling. Multidimensional scaling (MDS) is a nonattribute method that generally involves the comparison of multiple attitude objects (Dowling, 1988). A small number of retail stores, for example, can be compared, each against every other (pairwise comparisons). This can be done on a Likert scale to indicate the degree of similarity or difference between each pair of objects. Results are then transformed into a proximity matrix (i.e., how similar or dissimilar items are to each other), which is the input of multidimensional scaling. A map in multidimensional space is produced, and researchers can visualize which objects group most closely together. No predetermined attributes or cues are given to respondents. Based on their own criteria, respondents judge the similarity or difference between objects. It is then the researcher's task to interpret the meaning of the dimensions that separate attitude objects.

Projection Methods. In projection techniques, an attitude object is presented to subjects who are then asked to write or talk about it using association or construction (Davis, 1991). This entails presenting vague or ambiguous stimuli so that subjects have to draw on their imagination or feelings to make sense of them (e.g., What is the first word that comes to your mind when you hear [attitude object]?). Subjects can be also asked to complete sentence stems (incomplete sentences) containing reference to an entity (Bromley, 1993) (e.g., [Attitude object] makes me feel...). Descriptions elicited from these projection techniques are

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then content analyzed to form categories of descriptions.

Repertory Grids. This technique involves asking subjects how two attitude objects differ, and are similar to a third. This yields a list of bipolar constructs, which are used to form a matrix. From here, constructs can be correlated over elements, or elements over constructs. Cluster analysis can be used on the matrix of correlations between subjects across constructs (Bromley, 1993). This method can be used to select a set of attributes to profile the attitude object, but generally requires the comparison of multiple attitude objects.

The fundamental strength of nonattribute methods is the absence of forced choice bias. Researchers can ascertain the dimensions of image that respondents would arrive at of their own accord. Limitations include the time consuming task of coding open-ended data, and the risk of researcher bias in coding. Also, nonattribute methods typically produce categorical data, which generally limits statistical analysis to less powerful nonmetric methods (Zimmer & Golden, 1988).

Combinations. Multiple techniques are often combined in an effort to overcome some of the weaknesses of each. In one study, for example, semantic differential scaling was combined with open-ended questions (McDougall & Fry, 1974-5). The open-ended phase was used to elicit information about the focal object, which was then used to construct a semantic differential scale, which was then used on a different set of respondents. This overcame forced choice bias, and still allowed for quantitative analysis.

In another study, multidimensional scaling and free response data were combined (Jain & Etgar, 1976-7). Subjects were given a list of stores, and were asked to describe them freely using the first words that came to mind. Responses were then content analyzed, and frequency counts of words/phrases associated with each store were used to form a rectangular matrix. Instead of having stores on both axes of the matrix, one axis contained stores, and the other traits. The cell entries were frequencies of appearance of that trait with that store. The three-dimensional map plotted both traits and stores, and researchers could then look at the map to see the traits and the other stores that the focal store was located closest to. This method allowed for free responses, thus overcoming forced choice bias, and also applied statistical rigor via multidimensional scaling.

Nonmarketing Image Measurement Methods

The methods described above pertain to marketing issues. Image has also been studied in other disciplines, but with less frequency. Three other issues that have been studied using methods similar to those described are occupational image, tourism image, and corporate image. One study examined the occupational image of nursing (Birnbaum & Somers, 1989). It was noted that past measurement methodologies have included self-administered questionnaires and adjective checklists. The authors argued that a better method is one where subjects identify an ideal nursing role, which is then compared to the frequency with which they actually perform these ideal tasks. This nonattribute method was deemed superior to the other two attribute-based methods. One of the main reasons for its preference is the reduction of forced choice bias.

Image has also been studied in tourism. One study utilized multidimensional scaling to study tourism location images (Gartner, 1989). Subjects were asked to rate four states on 15 tourism dimensions (activities and attractions) on a five-point Likert scale. Responses were averaged for each state on each dimension. A matrix was formed, which was the input for MDS analysis. Similar to the previously discussed marketing study of Jain & Etgar (1976-7), both the traits and the states were plotted in multidimensional space, and researchers visually located each state relative to traits of interest, and relative to other states. The methodology used was attribute-based, since subjects were given 15 predetermined dimensions. As such, its strengths and limitations parallel those of other attribute-based methods.

Another tourism study employed a nonattribute method to study the image of two tourist destinations (Reilly, 1990). In this method, called the free elicitation of descriptive adjectives, subjects were asked which three words or phrases best described the attitude object of interest. Responses were then coded into similar categories. Frequencies of categories can be compared across relevant segments of respondents (e.g., did in-state skiers respond differently than out-of-state skiers?). This author argued that this method was superior to both semantic differential scales and multidimensional scaling because of its low expense, simple data analysis, unforced image dimensions, ability to determine lack of image, and the ability to compare across relevant segments.

Corporate image, or organizational image, has also been studied. Corporate image differs from retail store image because of its focus. Retail store image focuses on marketing issues

such as a company's perceived quality, perceived price, and perceived service. Organizational image encompasses a broader set of issues, which may include perceptions of the organization as a socially responsible corporate citizen, as an environmental caretaker, as an employer, and as an investment prospect. Two articles that review methods of measuring image note that all of the techniques discussed under marketing measures can also be used to measure corporate image. Some empirical work has been done, but less than image studies of marketing issues.

An early work (Cohen, 1963) offered a variety of corporate image measurement methods, such as unstructured interviews, reputation profiles, and cluster analysis. The reputation profile is an item list procedure, and cluster analysis can be used to reduce item list data. Most corporate image studies were noted to include two broad measures: familiarity of the firm and favorability of the firm. Subjects were often asked to choose the companies with which they were familiar, and then to rate them on a favorability/familiarity scale. This method fits into the attribute-based class, and has the corresponding strengths and weaknesses of those methodologies, the foremost shortcoming being forced choice bias. Another review of methods for tracking corporate image (Garbett, 1988) mentions that recognition studies gauge awareness of, and familiarity with, an attitude object. Alternatively, opinion polls can measure public attitudes on a focal object, and morale studies can measure internal (i.e., employee) attitudes (Garbett, 1988).

A recent study by Fombrun and Shanley (1990) utilized Fortune Magazine's study of

corporate reputation as a gauge of image. In the 1985 Fortune reputation study, Fortune 500 firms were rated by 4000 executives, outside directors, and security analysts. These respondents rated only firms within their industry, and rated each on eight attributes of reputation using an 11-point scale. Fombrun and Shanley used these Fortune ratings as a measure of corporate reputation in their study. Reputation, as measured by Fortune, was used as a dependent variable, and its effect on different independent variables was measured. In this case it was Fortune who measured corporate image, and this was done using an attribute-based rating scale.

Another study also utilized Fortune corporate image ratings (Gatewood, Gowan & Lautenschlager, 1993). This study utilized Fortune's criteria to test perceptions of image across different groups. The methodology used was attribute-based; a five-point scale and a list of dimensions was used as a measure of image. In a different phase of the study, multidimensional scaling was used to compare companies on recruitment image. This was a nonattribute MDS technique, since no judgment cues were given to respondents.

Multidimensional scaling has also been discussed by other researchers. This method generally involves the comparison of a set of companies, each company to every other (Dowling, 1988; Carlivati, 1990). Results are then plotted in multidimensional space. Some organizations will be closer in distance, and others will be further apart. The researcher must then identify the dimensions that account for these spatial relationships. This method is similar to the previously described nonattribute marketing methods, and carries the same limitations.

At a more practical level, it should be noted that businesses are increasingly interested in monitoring media coverage of their activities (Strauss, 1992). This can be facilitated by *media monitoring companies*, who collect all news items about an organization, relative to issues specified by company representatives commissioning the studies. This is a method that examines organizational image utilizing content analysis. It is different from the previously discussed methodologies because it does not interview subjects directly. Such media monitoring services have been utilized by several large companies, including GM and Dow Corning (Strauss, 1992). This method is attribute-based, since companies supply the issues that they desire to be monitored. This method suffers from lack of analytic rigor since articles are merely collected by the monitoring agent, with no identification of trends, and no analysis of the implications for image.

Summary

In sum, image measurement has been most studied in the marketing field, although some studies have been carried out in the realm of occupational image, tourism image, and corporate/organizational image. In all areas, methods can be classified as being either attribute-based, where specific image facets are supplied to subjects, or nonattribute measures, where no cues are given. Attribute-based measures include scales, item lists, and Q-sorts. Nonattribute methods include open-ended questions, multidimensional scaling, projection techniques, and repertory grids.

There are strengths and limitations to both types of image measurement methods.

Attribute-based methods have the advantages of providing standardized subject responses, high reliability, simplicity of data analysis, ability to explore multiple attributes, and ability to compare multiple attitude objects. Limitations include weak construct validity, since subjects are forced to respond to a set of predetermined attributes. It is time consuming to overcome this and to get a meaningful list of attributes, and this would probably require the use of a nonattribute technique. A final limitation of attribute-based methods is the problem of how to deal with 'I don't know' responses, which cannot be easily analyzed.

Nonattribute methods have the fundamental strength of overcoming forced choice bias. They are weak, however, in the quantity of time needed to code data, which is also vulnerable to researcher bias. Another limitation is that nonattribute methods typically require the use of less powerful nonmetric statistics because data is generally categorical.

Contribution of the Present Study

Based on this review of past research, there are several important reasons for undertaking the current study. First, there is a paucity of empirical studies of corporate image, a concept which is increasingly important. In the past, firms were seen as legitimate largely on the basis of their economic contribution to society. More recently, however, they are increasingly being challenged along several noneconomic dimensions (Pearson, 1989). For instance, an organization's image as a poor environmental caretaker, or as a manufacturer of 'shoddy' products, has the potential to damage relations with members of firm's external environment.

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Goals of long-term success and survival may subsequently be damaged. Corporate or organizational image, then, is increasingly important.

A second issue is that, despite the large number of studies generally done on image, nonattribute based methods are relatively new, and have been relatively less used. As such, there has been a call for more direct research on discovering the specific facets of organizational image: "...one useful direction of future research would be to determine the major components of organizational image..." (Rynes, 1991: 435). The present study attends to the process of identifying facets of image.

Finally, there is a need to integrate some previously separate literatures. Specifically, this study explores the linkage between communications issues (content analysis, agenda setting, the media, and public relations), marketing issues (image measurement), and organization theory issues (organizational image and strategy). McCombs & Shaw (1993) recently noted the natural linkage between agenda setting and image. Such linkages are explored in the present study, which utilizes a methodology that meets the needs of a 'print media organizational image audit.'

Methodology

The present study combined the methods of content analysis and multidimensional scaling in order to measure the corporate image of a large Western Canadian forestry company. This

company will be referred to as ForestCo. A single company was chosen as a case study for several reasons. First, ForestCo is a major player in the forestry industry, an industry whose activities are increasingly being scrutinized by the public. Such scrutiny makes ForestCo's media image an important practical and strategic issue. Large corporations have traditionally been welcomed for their economic contribution to the community, but the legitimacy of their activities is increasingly being challenged by a plurality of stakeholders. A related reason for using an in-depth case study is that ForestCo is widely known and publicly visible, and thus has been focused on extensively in print media. This has provided a rich archival data set. ForestCo was also chosen because of the cyclical nature of the forestry industry. Economic ups and downs provide an interesting backdrop for the study of 'image trends' occurring concurrent with business cycles. Finally, the use of an inductive, exploratory case study method was deemed appropriate because of the evolutionary nature of the issues being examined (Eisenhardt, 1989). Grounded theory, or inductive research, focuses on gathering insight from available data (Strauss & Corbin, 1990). Inductive methods were employed in this study, as content analysis and multidimensional scaling were used to explore a longitudinal set of mostly local newspaper and magazine articles written about ForestCo.

The findings of this study are based on the content analysis of 813 newspaper and magazine articles written about ForestCo over the fifteen year period of 1977 through 1991 [see Appendix 4 for the entire set of headlines]. Headlines were acquired from articles contained in a library clipping file. Articles in the file were obtained from nine newspaper and magazine print media sources. Seven newspapers included: (1) a local daily; (2) a regional daily; (3)

a national daily; (4) a national financial daily; (5) a national financial weekly; (6) a local daily published for the duration of an extended newspaper strike; and (7) a prestigious U.S. daily. The two magazines were (8) a local monthly business magazine, and (9) a national weekly, general news magazine. The majority of all news articles in the data set was obtained from the local and regional daily newspapers.

Headlines. Content analysis of media reports utilized article headlines as the unit of analysis. This focus was chosen because of the practicality of using headlines as opposed to entire article content. Headlines were deemed an adequate unit of analysis since they are replete with information foreshadowing the content of newspaper items. The primary purpose of headlines is to present information accurately, quickly, and attractively. Headlines facilitate rapid scan reading, so incorporate as much information as possible about the article. Headlines have been referred to as a 'handy condensation of news stories' (Garst & Bernstein, 1982: 91-2). Past research has also employed the use of headlines (Fombrun & Shanley, 1990), or alternatively, front page news leads, or the first sentences of news stories (Corrigan, 1990). In this tradition, the present study utilized the content analysis of headlines to identify recurrent image themes (Dutton & Dukerich, 1991). When sufficient information regarding the content of an article could not be gleaned from a headline, the first sentence of the article was used as a supplemental source of information.

Content Analysis. Content analysis is a methodology used for studying communications content. It applies quantitative techniques to traditionally qualitative data analysis.

Judgments are made by raters, or coders, about the focal communications content. Judgment is based on training in the use of a categorization scheme of objectively defined criteria (Kassarjian, 1977). Categories are delineated as explicitly as possible. Coders then study the content of the focal media to find occurrences of content in each of the specific categories outlined in the coding scheme. This is a means of applying systematization and quantification to data analysis that is otherwise subjective and ambiguous. Systematization is achieved by applying a consistent set of coding rules, and quantification is achieved by employing statistical methods of varying degrees of complexity (Kassarjian, 1977). Grounded theory has been described as the process of building theory from data (Strauss & Corbin, 1990). Data is analyzed, and categories are used to group similar data. Content analysis is a grounded theory methodology whereby data is reduced to more meaningful information sets (Weber, 1990).

Of the many uses of content analysis, the ones most central to the present study are: (a) to reflect attitudes and values; (b) to describe trends in communication content; and (c) to reveal the focus of attention (Berelson, 1954). On the first count, content analysis was employed here to examine the attitudes and values reflected in the media portrayal of ForestCo. Such attitudes and values should be monitored because of the connection between media content, public perceptions, and public behaviours. From the identification of media issues and trends about ForestCo, inferences about attitudes and values can be made. More specific conclusions can be reached about the other two uses of content analysis noted above, as content analysis tracks trends and shifting attention.

An important issue in the process of content analysis is the choice of *categories* (Holsti, 1969), which is the first step in a print media content analysis of image. The choice of categories strongly affects analysis results, because content analysis is 'no better than its categories' (Kassarjian, 1977). If an issue is not described in the category scheme in advance, this issue cannot subsequently be identified in the media content (Sepstrup, 1981). A related issue is *interrater reliability*, or the percentage of agreement in coding results across multiple independent coders. This is connected to the issue of category choice, because a poor selection of categories may lead to ambiguity, and to a resultant low interrater reliability score. Many researchers fail to report interrater reliability scores at all, while others report the percentage of agreement after collaboration over, and rectification of, disagreements between coders. Such reliability scores can be misleading, since the initial agreement rate is more indicative of the clarity or ambiguity of the categories than the second, adjusted score (Weber, 1990). A final issue is the failure of many researchers to report an *intrarater* reliability score, or percentage of agreement of a single rater at different times (Sepstrup, 1981).

The present study focused specifically on improving some of these content analysis issues. An initial categorization scheme was created by a single researcher, based on recurrent themes in the data. In an iterative manner the articles were examined, and issues that appeared to repeat were used as category themes. Based on headlines, the entire data set was coded into the ten categories of the initial scheme [see Figure 1 for a summary and Appendix 1 for the comprehensive categorization scheme].

FIGURE 1: INITIAL CATEGORIZATION SCHEME FOR HEADLINE DATA

CATEGORY	DESCRIPTION	# ARTS.	%
1 Standard Operating Issues	-standard business operations -routine news -stock information -management succession -wage information -product price information	95	11.7%
2 Business Trends:			
(a) Growth/Success	-increased sales, profit -investments, expansions -acquisitions of assets, businesses, etc. -improved credit rating -dividend payment announcements	100	12.3%
(b) Decline/Hard Times	-decreased sales or profits (or losses) -divestiture, downsizing -layoffs, shutdowns -pay cuts -decreased credit rating	161	19.8%
3 Corporate Messages:			
(a) Media Voice	-defense of some company activity -denial of a social ill -touting keys to company success -company view of U.S./Canada tariff issue	41	5.0%
(b) Prediction of business trends:			
Optimistic	-optimistic future outlook -denial of future negative outcomes -support of positive potential	19	2.3%
Cautious	-cautious future outlook -denial of positive potential -support of negative hard times	17	2.1%
4 Labour Relations Issues	-union strife (strikes, walkouts, etc.) -WCB issues -employee dissatisfaction with company policy -employee-related legal issues (e.g., wrongful dismissal)	109	13.4%
5 Environmental Issues	-land use, forestry/logging practices -pollution (chemical emissions, spills, etc.) -fines, allegations	102	12.5%
6 Takeover Issues	-takeover bids that ForestCo was involved in	132	16.2%
7 Government/Legal Issues	-fines, law suits, allegations, investigations (unrelated to the above categories) -ministry orders, government intervention	37	4.6%
TOTAL	**813**		**100%**

After classifying the entire data set based on this subjective coding scheme, three important content analysis issues were considered: (a) category formation, (b) interrater reliability, and (c) intrarater reliability. The objective of the present study was to apply more rigorous statistical methods to the initial classification scheme in order to improve stability (reliability), accuracy (internal validity), and generalizability (external validity). The methods used to create categories and to measure interrater and intrarater reliability will be discussed, followed by a presentation of the results of each.

Category Formation

Standard means of delineating categories include referencing past research, focusing on hypotheses of interest, and utilizing researcher intuition and knowledge (Sepstrup, 1981). It has been somewhat problematic that categories are often based on a single researcher's perception of what is present and important in the data. This is especially problematic in the measurement of corporate image, since image is a perception-based entity. In fact, image has as its central focus the media issues and values *perceived to be important by corporate stakeholders.* As such, an insular approach to the delineation of image categories is problematic. A process whereby a single person arrives at a set of categories fails to provide a check on the biases of the single researcher. To account for this potentially fatal flaw in content analysis, multidimensional scaling, utilizing multiple respondents from the general public, was employed to arrive at a revised classification scheme.

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Multidimensional Scaling (MDS). Multidimensional scaling is a statistical method used to uncover the 'hidden structure' of data (Kruskal & Wish, 1978). MDS was chosen as a methodology because of the nature of the data. Since causality is not an issue in this study, 'dependence' multivariate statistical methodologies were not appropriate. Factor analysis and cluster analysis were not useful because the initial form of the data was nominal, and these methods generally require at least interval data (Dillon & Goldstein, 1984). More importantly, these methods were not appropriate because they focus on clustering items based on measures of different variables. In this case, measures of different variables were not available. The only data available was a set of headlines. In other words, the purpose was to cluster the *data*, and not the *variables*. Some image studies, for example, might seek to cluster image facets such as quality, environmental-friendliness, and service. Cluster analysis could be done on the basis of responses to scale questions. In the present case, however, respondents were not surveyed for image information; rather, media information was the image source of interest. In the absence of variables to manipulate, the data itself (i.e., the article headlines) were all that was available for grouping.

The most directly relevant and parsimonious method available to statistically analyze data was multidimensional scaling. This method is also intuitively appropriate since it is often used in marketing research that compares multiple items, with the goal of identifying which stimuli are similar and which are different. It is only after the items are plotted in multidimensional space (based on Euclidean distances) that dimensions that differentiate between stimuli are identified. Relative to the prior discussion of image measurement methods, MDS conforms

to the nonattribute set of methodologies (Hair, Anderson, Tatham & Black, 1992). In other words, respondents are not given a forced set of descriptors on which to rate an object. Instead, they compare items based on their own perceptions. A nonattribute method is very important in the present study, since the goal was to analyze media content to determine issues or themes therein. Factor and cluster analysis are more appropriate in attribute-based methods, where issues aren't inferred from the data, but rather, are given to respondents, measured, and then analyzed for clustering. In the present case, a *card sort* method of multidimensional scaling was employed to capture the perceptions of multiple respondents, as well as to accommodate the large data set.

Card Sort. The MDS method used here involved the standard pairwise comparison between a subset of the 813 headlines. A random sample of 98 headlines, stratified by year, was taken from the data set. This quantity is more than adequate for the purpose of MDS analysis, which requires at least four times as many items as dimensions (Kruskal & Wish, 1978; Hair et al., 1992). When data sets are extremely large, it becomes almost impossible to ask respondents to compare each item with every other item. With a data set of 98 headlines, the number of comparisons would be approximately 5,000 (Combinations=n!/(x!(n-x)!)=98!/2!96!=4753 combinations). Clearly, respondents could not be expected to perform nearly 5,000 comparisons. A way to get around respondent burnout in the case of large data sets is the *card sort* method (Kruskal & Wish, 1978). In the present study, respondents were given the same subset of 98 headlines, each pasted on a separate index card, and were instructed to form piles of 'like headlines.' To avoid forced choice bias, the number of

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categories to be formed was not specified.

A record was kept of the headlines that were grouped together in piles, as well as the 'theme' of each pile. A 98x98 matrix was formed for each of the 20 respondents (only one half of the matrix was needed). Each of the 98 headline items was compared to each of the other items. If a pair was placed in the same pile, it would get a cell score of 0, indicating a small distance between items. If placed in different piles, the cell would get a score of 1, indicating a larger distance between items. The measure for each person was binary (i.e., 0 or 1) because the *degree* of difference was not measured; two of cards were either in the same pile or not. The proximity data (i.e., distances) for input into the MDS analysis came from summing the 98x98 grids of all respondents. In short, if most respondents placed two cards in the same pile, they would be considered very similar, and have a score close to zero. On the other hand, if everyone placed a pair of cards in different piles, there would be many 1s, and thus a higher score (up to a maximum of 20 -- 20 respondents). Note that the card sort method is not the same as the Q-sort methodology, whereby subjects must place cards in a normally distributed set of groups that correspond to a prespecified statement. Q-Sort is closely associated with attribute-based methodologies, which were deemed inappropriate here.

The single 98x98 matrix that resulted from adding across respondents was input for the MDS analysis. ALSCAL on SPSS was used to analyze the pairwise comparison matrix. This statistical software converts the data matrix into Euclidean distances, and plots the items in multidimensional space. Based on a visual examination of the plot of data items, specific

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clusters can be recognized. In this case, each cluster will represent a unique thematic category. The set of categories that is discovered using MDS is the basis of the categorization scheme that is next used to perform content analysis of the entire data set. The use of multidimensional scaling for creating a categorization scheme is argued here to be a useful supplement to the use of theory, researcher judgment, or past studies. It allows multiple perceptual input to the process of identifying themes in a data set.

Subjects

Twenty respondents performed the multidimensional scaling task that served to delineate valid categories in the data. A convenience sample was used, and respondents were either acquaintances, or were nonacquaintances that were recruited via posted notices. This sample was not meant to be significantly large or random, as this research was exploratory rather than experimental, and since hypothesis testing was not the goal. Despite this, it was still important to recruit a diversity of respondents who might approximate ForestCo stakeholders, since this is the group whose perceptions were considered to be important to ForestCo managers. To achieve this end, the sample excluded the use of university students, and attempted to incorporate as broad a spectrum of individuals from the general public as possible.

Interrater Reliability

Reproducibility, or interrater reliability, measures the consistency of shared understanding or meaning held by two or more coders (Weber, 1990). A typical measure of interrater

reliability is the raw percentage of agreement between the coded data of two coders (Kassarjian, 1977). A straight percentage is less than optimal, however, because a certain level of agreement would be expected to occur by chance. Cohen's Kappa (Cohen, 1960) is an interrater reliability statistic that adjusts for chance. This is important, because the percentage of chance agreement can be greatly affected by the number of categories and the frequency with which each is used. For example, a classification scheme of three categories would have more agreement by chance alone than would a scheme of ten categories. Reliability percentages arrived at using Cohen's Kappa, as with straight agreement percentages, lie between 0 and 1. Reliability scores should be interpreted as the percentage of agreement *over and above chance*.

As mentioned, two separate classification schemes were created during this study. The first was based on the judgment of a single researcher. The second, revised classification scheme was formulated on the basis of MDS analysis, which was used to generate more valid and reliable categories for content analysis. Interrater reliability, using Cohen's Kappa, was calculated for the initial categorization scheme as well as for the revised, MDS-based scheme.

Intrarater Reliability

Intrarater reliability is the percentage of coding agreement by the same person at different times. This is a measure of stability, or the consistency of an individual's private understanding (Weber, 1990). It is important in content analysis to test the stability of the

classification by a single person, as well that of multiple raters. This is an important second measure of the clarity and reliability of a categorization scheme. Cohen's Kappa was again used, but this time for the purpose of measuring intrarater reliability. Again, intrarater reliability was calculated twice, once for the original classification scheme, and once for the revised, MDS-based scheme. In the case of both classification schemes a period of over one month elapsed between initial coding and reliability checks.

Results

The ultimate findings of this study were a set of categories that contain information upon which the image of ForestCo may be formulated, as well as a set of trends elucidated by these categories. Before presenting these findings, the results of the methodological issues of category formation and reliability will be discussed.

Results: Revised Category Formation

Based on the card sort performed by 20 respondents, a 98x98 proximity matrix was formed (individual respondent matrices were summed). MDS analysis using ALSCAL statistical software converted the proximity data into Euclidean distance data, which was subsequently plotted in multidimensional space. Statistical output of the software provides two goodness-of-fit measures: Kruskal's S-STRESS formula, and a squared correlation coefficient (RSQ). Low S-STRESS values and high correlation coefficients indicate a better fit of the data. ALSCAL functions by iterating through various solutions until the amount of improvement

in S-STRESS is below .005. In other words, the program stops when subsequent iterations do not contribute significantly to an improvement in fit.

The number of MDS dimensions is generally between two and six. The use of a higher number of dimensions leads to improved fit, but reduced interpretability. The choice of dimensionality should be based on goodness-of-fit (low stress), interpretability, ease of use, and stability (Hair et al., 1992). Stability can be tested by splitting the sample, and running MDS analysis on both halves to ensure agreement in clusters. In the present study, the sample was split in half, and MDS analysis was performed on both halves, as well as on the whole. Based on a comparison of different dimensionalities, a two-dimensional representation was chosen. Figure 2 displays the MDS map of the entire data set, as well as MDS maps of the two halves. Clusters of headlines were identified in the data, based on physical proximity. These clusters are depicted in Figure 2 with circles. Items within the circles cluster closely together with each other, and are somewhat separate from other groups of data points.
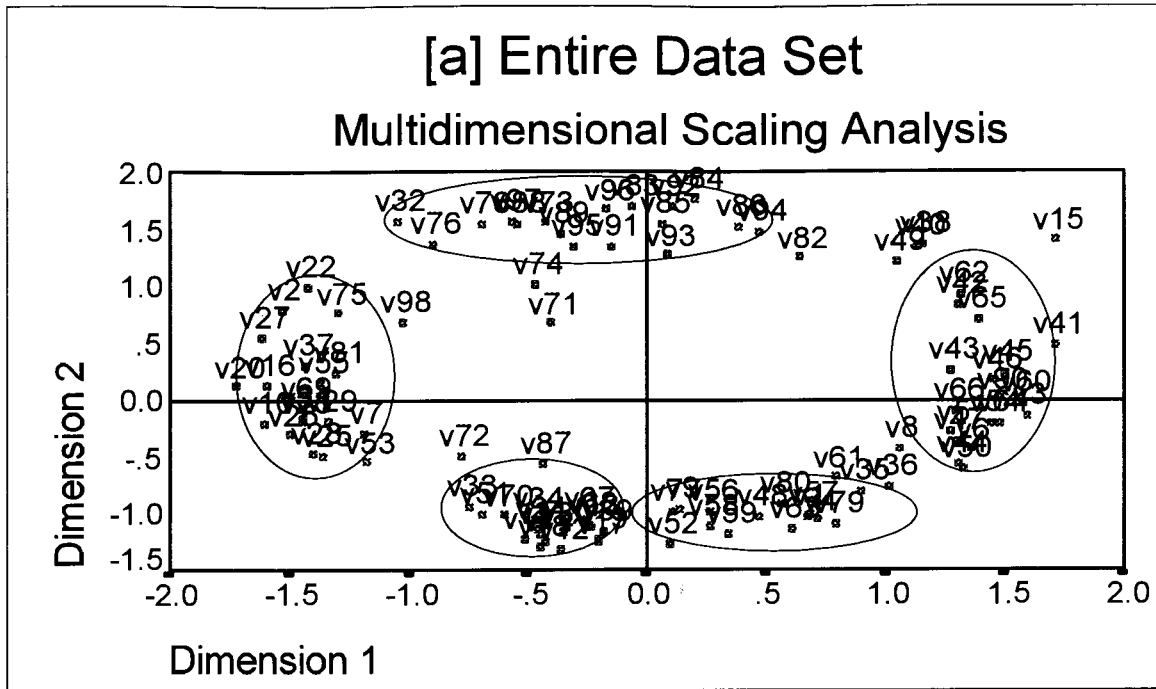
[a] Entire Data Set

Multidimensional Scaling Analysis

[a] Entire Data Set

Multidimensional Scaling Analysis

FIGURE 2 (con't): MULTIDIMENSIONAL SCALING SPATIAL CONFIGURATIONS

[b] First Half of Entire Data Set
Multidimensional Scaling Analysis

FIGURE 2 (con't): MULTIDIMENSIONAL SCALING SPATIAL
CONFIGURATIONS

[c] Second Half of Entire Data Set
Multidimensional Scaling Analysis
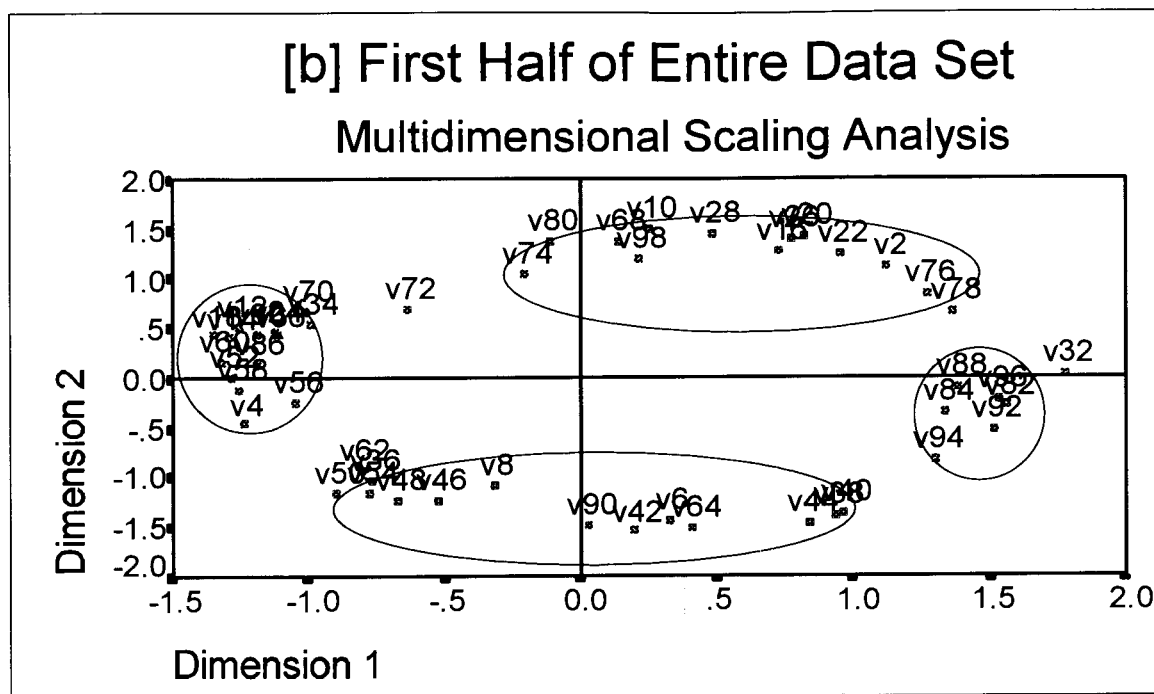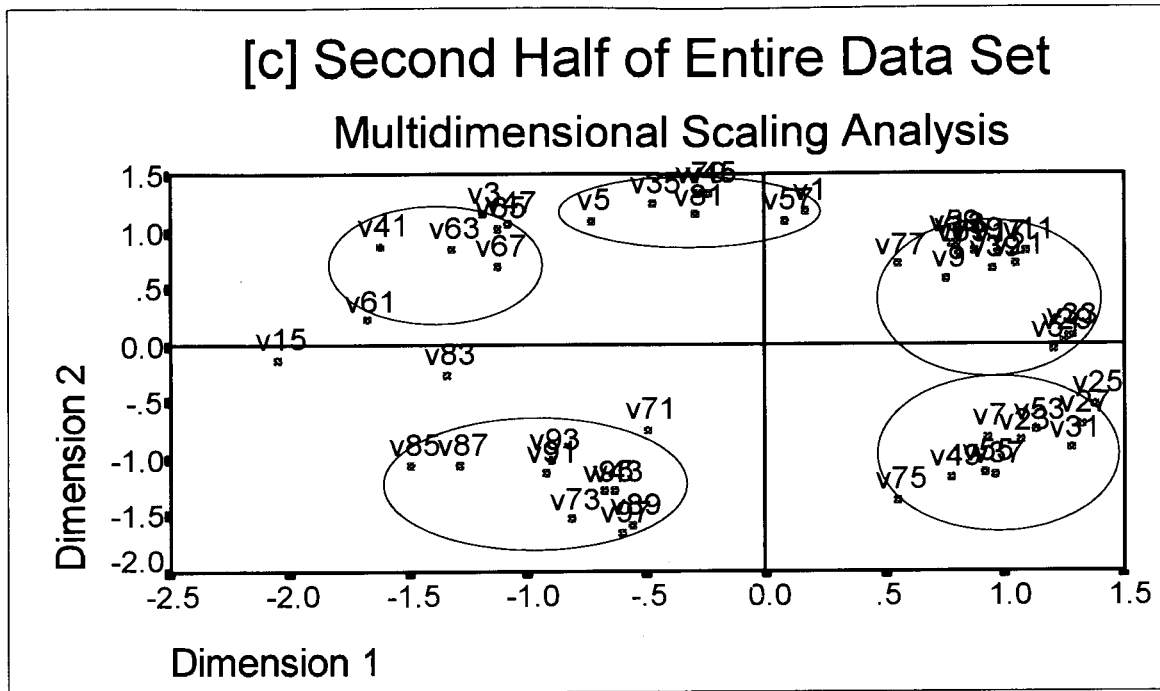
A two-dimensional solution was appropriate for several reasons. First, the improvement in fit between the two and three dimensional solutions was not significantly large (a change in S-STRESS of .08, .06, and .08 for the first half, the second half, and the total set, respectively). Further, a high dimensionality would have increased complexity, thereby compromising interpretability, which is extremely important in this use of MDS. It has been noted that three or more dimensions are difficult to interpret (Hair et al., 1992), so a two-dimensional solution was preferred. A third point is that there was a high degree of stability in the two-dimensional solution. Based on the split sample, the two halves produced parallel categories. This stability was not present in a split-half study of the three-dimensional configuration.

For these reasons, a two-dimensional solution was appropriate and resulted in S-STRESS values of .36, .34, and .37, for the first half, the second half, and the total set, respectively. Correlation coefficients (RSQ) were .31, .38, and .31 for the three groups, respectively. This level of fit is normally considered to be low in MDS analysis, but was deemed adequate here for several reasons. First, given the extremely large number of data items and the large number of different respondents, substantial variability is to be expected. Second, the nature of the headlines being analyzed affects fit. Many headlines present multiple issues, leading to differential grouping by different respondents. Finally, the sole purpose of using MDS was to assist in category formation. Based on the results of this study, MDS analysis helped to improve the reliability of the categorization scheme, and thus accomplished its purpose -- this despite the relatively low correlation coefficient and high stress values.

Based on a two-dimensional solution, five categories were identified in the clusters [see Figure 2]. The first half MDS map shows only four, but this is only because two of the categories blend together. In order to name the groups, data supplied by respondents about the 'themes' of their card piles was referred to. The five groups can be labelled as: (1) Environmental Issues (ENV); (2) Government/Legal Issues (G/L); (3) Labour Relations Issues (LR); (4) Business/Economic Trend Issues (BUS); and (5) Standard Financial/Operating Issues (SOI). See Appendix 2 for a breakdown of the headlines that fall into each of the five clusters.

Based on these themes, the horizontal dimension was determined to represent Economic/Legal Concerns. Issues range from government and legal issues on the left, to market and economic issues on the right. The vertical dimension was determined to represent Social Concerns. Issues along this dimension range from public concerns such as environmentalism at the top of the y-axis, to private sector, employment issues at the lower end of the axis. Figure 3 presents the MDS map of the entire data set, combined with labels of both headline clusters and dimensions (axes).
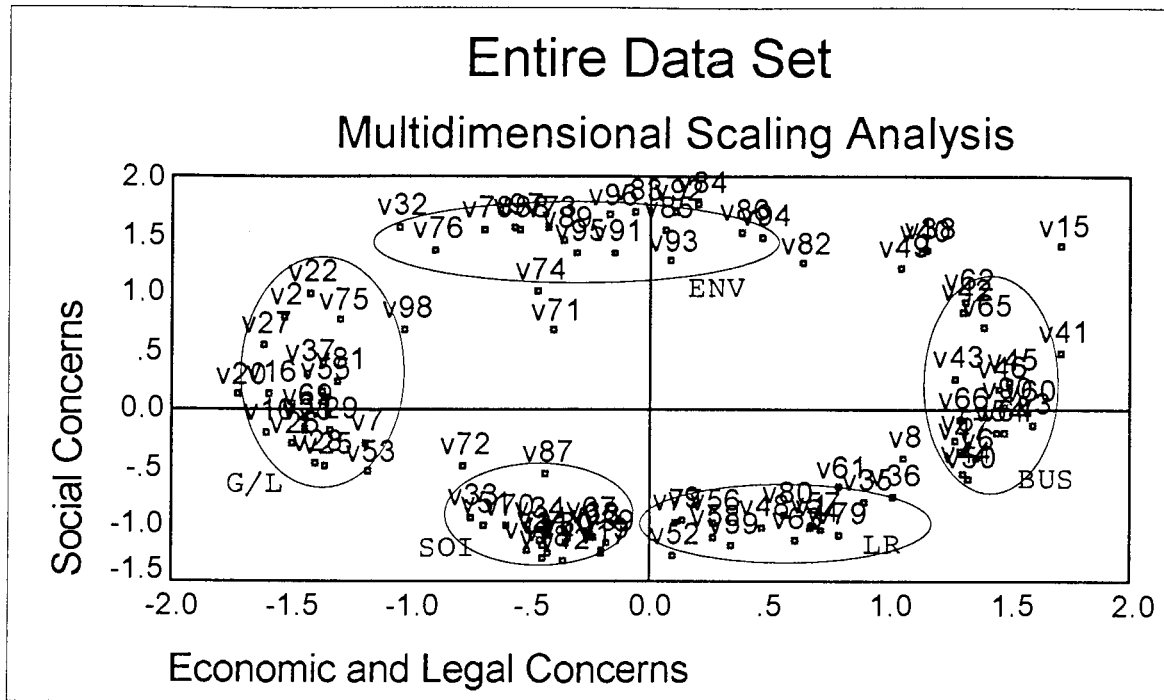
Of all the clusters identified, the meaning was most clear in the case of Environmental Issues and Government/Legal Issues. These two categories were distinct in both halves, as well as the whole [see Figure 2]. The three remaining categories exhibit some overlap, largely based on their interdependent nature. For example, headlines reporting employee layoffs and plant closures affect employees, so would be present in the Labour Relations category. Other distinct labour relations issues, such as strikes and walkouts, would also cluster in this category. However, layoffs are also indicative of negative business trends, so these articles also fit in the Business/Economic Trend Issues category. This category would also consist of other more distinct business trend articles, such as profit increases or losses. This thematic overlap can be seen on the MDS maps, as categories merge together at their boundaries [Figure 3]. Apart from the clear environmental and government/legal clusters, the first half map shows three clusters: (1) Business/Economic Trend Issues, (2) Labour Relations Issues, and (3) Standard Financial/Operating Issues. The second half map shows two clusters that combine these three issues: (1) Standard Financial/Operating Issues; and (2) Labour Relations Issues. Both of these also include Business/Economic Trend Issues, the third cluster that is present in the first half map, but absent in the second.

The map of the entire data set contains five clusters. Again, the categories of Environmental Issues and Government/Legal Issues are relatively distinct. The other three categories identified in the split halves once again overlap. One cluster is primarily Business/Economic Trend Issues, with some Labour Relations items. The second cluster is primarily Labour Relations Issues, with some Business/Economic Trend items. The third cluster is Standard

Financial/Operating Issues, with some Business/Economic Trend items. Some of this overlap can be understood based on the original categorization scheme that was created without the assistance of MDS analysis. A comparison of the initial scheme and the MDS maps displayed above is useful in creating a revised categorization scheme.

The initial categorization scheme consisted of ten categories [see Figure 1]: (1) Standard Operating Issues; (2) Positive Business Trends; (3) Negative Business Trends; (4) Speculation of Positive Business Trends; (5) Speculation of Negative Business Trends; (6) Company Media Voice (PR); (7) Environmental Issues; (8) Labour Relations Issues; (9) Takeover Issues; and (10) Government/Legal Issues. Findings from the MDS analysis inform the process of revising the initial subjective categorization scheme. The purpose of the revision is to reduce ambiguity, and to increase stability (intrarater reliability), reproducibility (interrater reliability), and accuracy of categories (validity).

An important first finding from the MDS analysis is that two of the categories, Environmental Issues and Government/Legal Issues, were relatively robust, and thus should remain unchanged. A second observation is that three of the initial categories, Speculation of Positive Business Trends, Speculation of Negative Business Trends, and Company Media Voice, were not empirically valid. These three categories did not cluster in the MDS analysis. The likely reason for this is the relatively small number of these items in the overall data set, as well as the difficulty discerning subjective issues such as speculation and voice. These categories were discarded in the revised categorization scheme, although each of the new

categories could be further content analyzed to locate speculation and voice issues. A third finding is that two issues -- takeovers and layoffs -- are distributed among the three less distinct clusters of Business/Economic Trend Issues, Labour Relations Issues, and Standard Financial/Operating Issues. In the initial categorization scheme, Takeover Issues were a separate category. Layoffs were not a separate category, but rather, were included in the Negative Business Trends Category. The reason for overlap is clear when one considers the two issues. Layoffs are labour-related issues, but they are also indicative of business trends. Takeover issues may be considered Standard Financial/Operating Information or, alternatively, may be considered as a Business/Economic Trend. How a respondent chooses to classify headlines will depend on their idiosyncratic perceptual processes.

One purpose of categorization schemes is to reduce ambiguity and to provide clear, precise directions about how to classify data (Holsti, 1969). In order to maximize clarity, the revised categorization scheme separated out the two overlap issues discussed above (takeover and layoffs). Takeovers, as well as mergers and acquisitions, form a single category in the revised classification scheme. Layoffs, as well as plant closures, plant reopenings, and rehires, are also grouped together in their own category in the new scheme (see Appendices 1 and 2, respectively, for the full initial and revised coding schemes). Both of these categories do not cluster on the MDS maps, but singling them out should reduce the overlap of the three categories of Business/Economic Trend Issues, Labour Relations Issues, and Standard Financial/Operating Issues. At a later stage of further content analysis, these new categories can be combined with any of the other categories if this is deemed appropriate and

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meaningful.

A final adjustment that was made for the revised categorization scheme pertains to the Business/Economic Trend Issues category. This category, which was evident in the MDS maps, was split into both positive and negative business/economic trends. This parallels the two business/economic trend categories of the initial coding scheme, and is deemed appropriate for its flexibility in further content analysis. The two business/economic trend categories could be combined to form one, or could remain separate, or could be combined with other categories -- whatever is deemed meaningful. Based on these issues, the revised categorization scheme consists of eight categories: (1) Environmental Issues (ENV); (2) Takeovers, Mergers, and Acquisitions (TMA); (3) Government/Legal Issues (G/L); (4) Labour Relations Issues (LR); (5) Employee Issues of Layoffs, Shutdowns, Recalls, and Reopenings (EI); (6) Positive Business Trends (BUS(+)); (7) Negative Business Trends (BUS(-)); and (8) Standard Financial/Operational Issues (SOI) [see Figure 4].

Another issue that created ambiguity and overlap is the existence of multiple issues within single headlines. To reduce the uncertainty caused by this, while retaining the requisite mutually exclusive and collectively exhaustive categories (Holsti, 1969), a 'category hierarchy' was formed. This lists the eight categories in order of priority. In cases of multiple issues existing within a single headline, the final arbiter of the coding decision is the hierarchy. The hierarchical order is the same order that the categories above are listed in, with Environmental Issues being of first priority, and Standard Financial/Operational Issues being last. Note that

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the decision of hierarchy positioning was somewhat arbitrary here. Environmental Issues were placed first because of the distinct nature of this category, and because of its importance. Takeover Issues and Government/Legal Issues were placed next because of their seeming importance to business organizations. Labour Relations, Employee Issues, and Business Trends were next because of their similar nature. Finally, Standard Operating Issues were last because of their ongoing, standard nature. In the case of an actual corporate image audit, the order of priority would be based on the interests of managers of the company in question.

Based on the revised categorization scheme, and the category hierarchy, the entire set of headlines was recoded. Figure 4 provides a summary of the categories, as well as the number and percentage of headlines falling into each category. Appendix 3 provides a more comprehensive description of the categorization scheme. After coding the data, the issue of reliability was addressed.

FIGURE 4: REVISED CATEGORIZATION SCHEME FOR HEADLINE DATA

CATEGORY:	SPECIFIC ISSUES:	#articles	%articles
[1] Environmental Issues	-land use (reforestation, logging) -pollution (chemical spills, etc.) -environmental allegations/fines	97	12%
[2] Takeovers, Mergers & Acquisitions	-takeover bids -mergers, and acquisitions -issues related to takeover	148	18%
[3] Government/Legal Issues	-fines, law suits, allegations -ministry orders, gov't intervention -Workers' Compensation Board rulings	76	9%
[4] Labour Relations Issues	-union strife (strikes, walkouts, etc.) -employee dissatisfaction -employees concerns over issues	94	12%
[5] Employee Issues of Layoffs, Shutdowns, Recalls, and Reopenings	-closure of plants/mills -layoffs -reopenings and recalls	109	13%
[6] Positive Business/ Economic Trends	-profitability -increased sales -reduced losses (and upward trends) -dividend payments	107	13%
[7] Negative Business/ Economic Trends	-reduction of profit/gains -negative trends -streamlining	78	10%
[8] Standard Financial /Operating Issues	-standard stock information -strategic plans -product price increases/decreases -new products	104	13%
Total		813	100%

Results: Interrater and Intrarater Reliability

Interrater reliability was measured for both the initial and the revised categorization schemes. For the initial categorization scheme, raw interrater reliability was 70%, with the associated Cohen's Kappa of 66% (adjusted for chance). Based on the revised categorization scheme, the raw reliability moved up to 82%, with an associated Cohen's Kappa of 80%. This demonstrates that the more rigorous categorization scheme served to improve reproducibility, or reliability. Intrarater reliability was also checked. Based on the initial categorization scheme, the raw reliability was 88%, with an associated Cohen's Kappa of 86%. The revised categorization scheme produced an improved raw interrater score of 95%, with an associated Cohen's Kappa of 94% [see Figure 5 for a summary].

FIGURE 5: SUMMARY OF RELIABILITY RESULTS

| | % AGREEMENT: | |
RELIABILITY:	RAW:	COHEN'S KAPPA:
Interrater Reliability of Initial Categorization Scheme	70%	66%
Interrater Reliability of Revised Categorization Scheme	82%	80%
Intrarater Reliability of Initial Categorization Scheme	88%	86%
Intrarater Reliability of Revised Categorization Scheme	95%	94%

One researcher argues that an 'adequate' level of interrater agreement (unadjusted for chance) is 85% or higher (Kassarjian, 1977). Based on the nature of the data, as discussed above, the 82% raw agreement between raters achieved here seems adequate. Some of the causes of low interrater reliability scores are: ambiguous coding rules, ambiguous text, cognitive changes in coders, and error. Low scores can also be caused by cognitive differences among

coders, ambiguous coding instructions, or random recording errors. Based on the reliability results, it appears that the first categorization scheme was more ambiguous and more prone to inconsistency than the revised scheme. This lends support for the use of a more rigorous method of identifying categories from the data. Once reassured that the categorization scheme is accurate (valid categories), and that coding is stable and reproducible (high Kappas within and across coders), the content of each category can be analyzed in more depth. This provides insight into the nature of the information that is the foundation of ForestCo's image.

Results: Headline Issues and Trends

To this point, the importance of corporate image and its relationship to the print media have been described, and a valid and reliable means of analyzing content has been presented. All of this was the prelude to the central findings of this study, findings related to the image of ForestCo. Information found in the eight categories discussed above is not direct image information; rather, it is one source of input to the perceptual process of stakeholder image formation. Understanding the content of the headline categories is thus important in understanding the type of information that is on media agendas, and thus the informational bedrock of stakeholder perceptions. To understand the nature of this informational foundation, the categories were further content analyzed to uncover trends and salient issues. Findings are related to the following: (a) environmental issues, (b) business/economic trends, (c) news 'spikes,' and (d) labour relations.

Environmental Issues. Issues related to the ecological (as opposed to business) environment have important implications for corporate image. The current business climate is one of not only increasing mistrust and dislike of big business (Kuhn & Shriver, 1991; Lukaszewski, 1990), but also one of increasing pressure and censure related to business operations perceived as detrimental to the ecological environment (Ruch & Roper, 1992; Sethi, 1990). Environmental issues are clearly an important component of public perceptions of the image of forestry companies such as ForestCo.

The entire content (as opposed to headlines alone) of articles in this data subset was analyzed, and results show an increasing media focus on issues surrounding ForestCo and environmentalism. Ninety-seven articles were found to be related to environmental issues about ForestCo, land use, and pollution. Increasing 'green' coverage in both absolute and relative terms was found. The eight environmental articles present between the five year period of 1977 through 1981 comprise 2.2% of that period's total article set. The 19 articles present between 1982 and 1986 account for 7.2% of that period's data. Finally, the jump to 70 articles between 1987 and 1991 equates to 36.6% of total articles between those years [see Figure 6]. In both 1989 and 1990, environmental articles accounted for approximately 50% of the total article set for those years. In short, the absolute number of environmental articles has increased, as well as environmental articles as a percentage of the total data set.

FIGURE 6: A RISING INTEREST IN ENVIRONMENTAL ISSUES

ENV Articles -- A Rising Interest in Environmentalisı
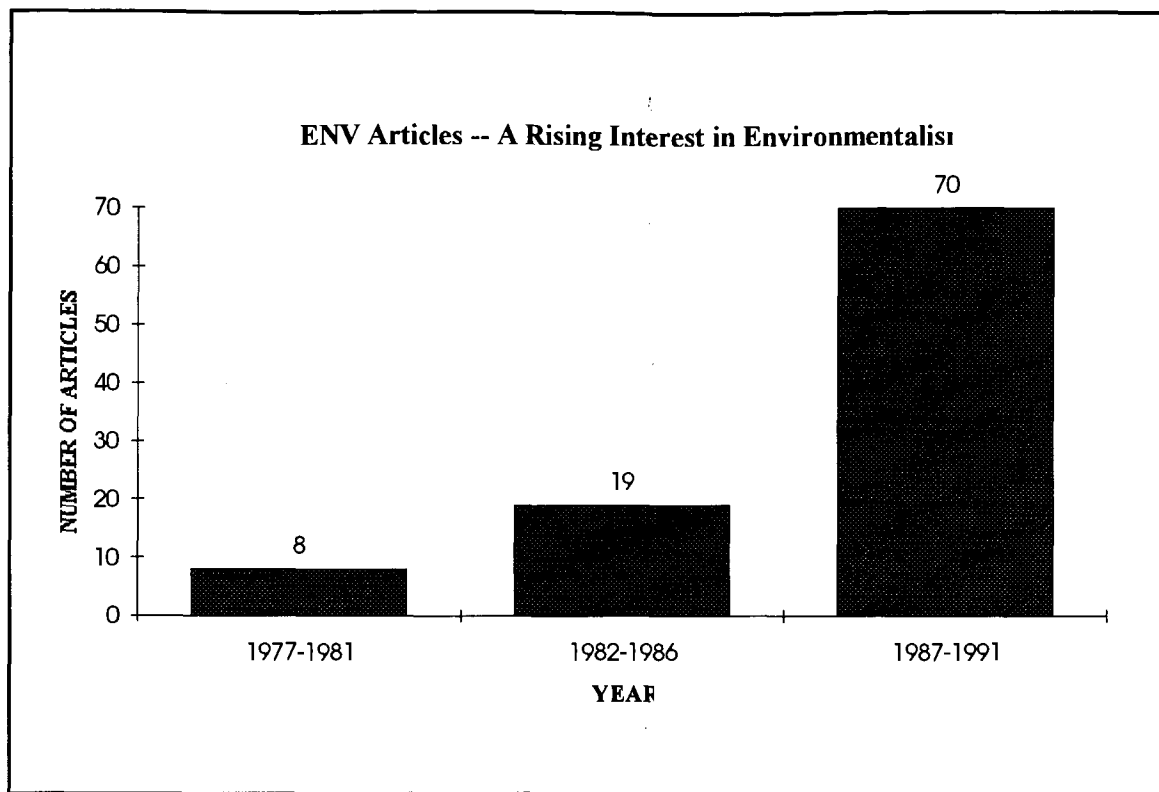
Further analysis of the data set provides insight into the source, or *voice,* of environmental news items. ForestCo was attributed voice in an article when its views were clearly taken, as in press releases or the reporting of issues from annual reports (e.g., "We will sue protesters, says ForestCo": April 25, 1991). The environmentalist public, both staunch and passive, was attributed voice in articles when their activities or views were the focus of attention (e.g., "ForestCo bid to increase emissions has neighbourhood worried": Aug 6, 1990). Articles in either category could report views of the 'opposing side,' but the classification judgment was based on the article's primary emphasis. A third class of environmental articles was reported from a more neutral, independent media perspective (e.g., "Probe into B.C. forest firms finds too much wood wasted": Apr. 15, 1988). This was found in articles where news was reported in a seemingly objective, unbiased manner. The Environmental Issues subset, in aggregate, revealed ForestCo voice in 51% of articles, environmentalist voice in 30%, and an independent voice in 19%. This is an important finding since it gives credence to the premise that corporate voice, and hence control over corporate image, is possible.

Corporate voice is particularly important within the realm of the ecological environment, since the portrayal of a company as a poor environmental caretaker could be detrimental to its legitimacy. Such an image could deflect customers if international markets shrink as logging practices are deemed counter to human interest. Similarly, potential investors might be deterred due to fears that government intervention and regulation might reduce returns on investment. Financial resources might shrink due to loss of customers or investors, and

material resources might shrink due to government intervention and legislation (i.e., restricted logging access). Human resources, too, might be affected if current and potential employees feel that ForestCo is not a legitimate company to work for. Findings show that many of the articles in this data subset have the potential to create a destructive image that could damage the core business of ForestCo (e.g., "ForestCo guns down trees": July 13, 1978). However, there are also countervailing messages sent by the company to help balance the overall message (e.g., "ForestCo wants public reaction to forest-management plans": June 9, 1991).

Business/Economic Trends. Three categories are important in the analysis of ForestCo economic trends: Positive Business/Economic Trends, Negative Business/Economic Trends, and Employee Issues. The category of Employee Issues was separated from the former categories to prevent overlap in the revised coding scheme, but the contents are still related to layoffs, shutdowns, recalls, and reopenings -- issues that are applicable to business trends. As such, this category was combined with the Business Trend categories for this subanalysis. The Employee Issues category was divided into positive employee issues (e.g., mill reopenings and recalls) and negative employee issues (e.g., layoffs and shutdowns). Of the 109 Employee Issues articles, 16 were positive and 93 were negative. When the positive employee items are combined with the Positive Business/Economic Trend items, and the negative items with the negative Business/Economic items, there are a total of 123 positive articles (42%) and 171 negative items (58%). Two features are of particular interest. First, there are more negative articles than positive, despite the fact that ForestCo net earnings rose and fell an even seven times each, across the 15 year period. Further, earnings deficits were

experienced in only two of the 15 years studied [see Figure 7]. This finding is consistent with previous characterizations of negativity of the news (Gergen, 1992; Evans, 1987). The second interesting feature is the fairly strong relationship that exists between business/economic news and net earnings. Both positive and negative business trends parallel the cyclical earnings of ForestCo. Reports classified as positive business trends correspond with net earnings with a correlation coefficient of +.61, while negative business trends correlate with net earnings with a correlation coefficient of -.64. These observations provide support for the cyclical nature of business trend news, which closely parallels earning trends. As earnings rise, positive business news increases and negative business news decreases. Conversely, when earnings fall, positive business news decreases and negative business news increases.

FIGURE 7: ECONOMIC/BUSINESS TRENDS COMPARED TO FORESTCO EARNINGS

Positive & Negative Business Trends Compared to ForestCo Net Earnings
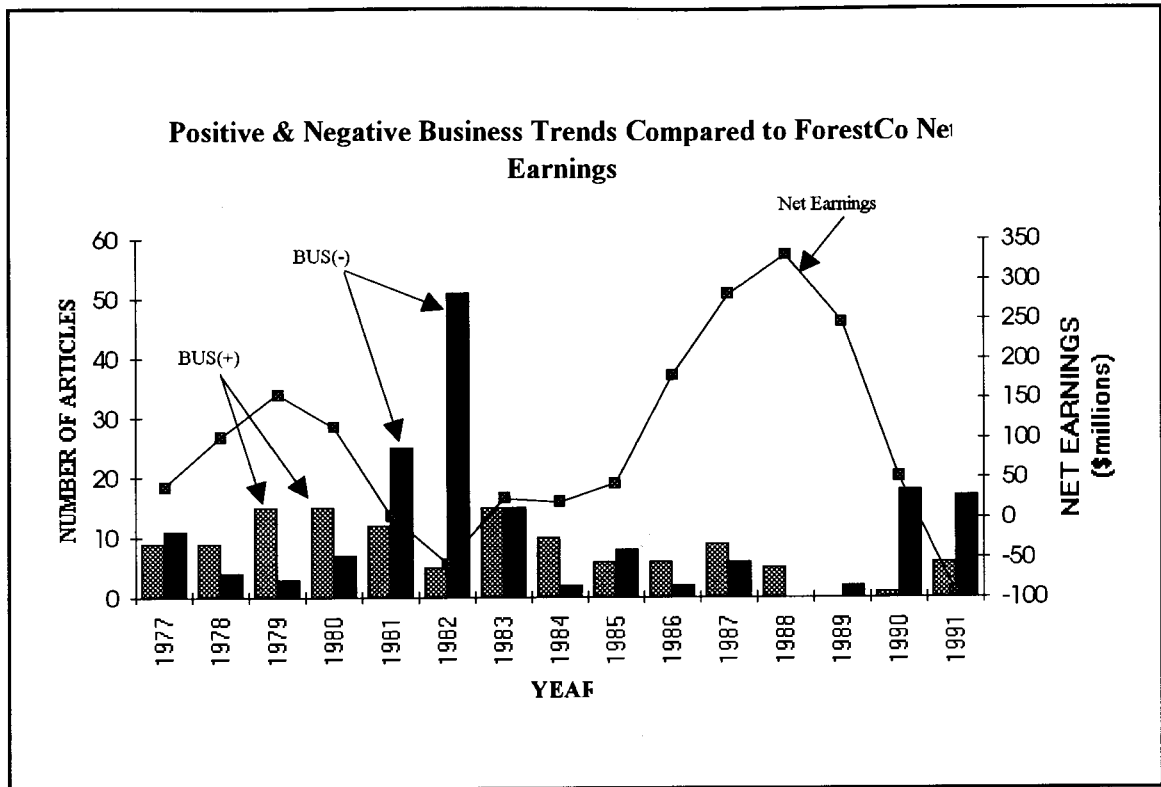
The media focus on negative financial outcomes has potential ramifications that should be considered. If current and potential investors perceive that a company is not an attractive investment option, the company risks losing financial resources. The dominance of negative news, regardless of objective bottom line financial outcomes, emphasizes the importance of attempting to manage media impressions.

Takeover Issues -- An Illustration of News 'Spikes.' The category of Takeovers, Mergers, and Acquisitions (TMA) includes articles dealing directly or indirectly with takeover bids, mergers, and acquisitions in which ForestCo was involved. This is an interesting category because of its sheer size -- 148 articles, or 18% of the entire data set -- making it the largest data subset. Of these articles a small proportion are related to different ownership issues, with the balance focused on a single takeover battle that occurred around 1981. This is indicated by the 110 TMA articles that appeared in the year 1981, with a total of only 38 articles appearing in the other 14 years combined. The single takeover battle involved two other companies besides ForestCo, and drew the attention and concern of government players. It also affected stock value and internal company issues, such as the composition of the board of directors.

A striking feature of the Takeover category is its sudden appearance in 1981, and then its sudden departure in 1982. This is a news issue that dominated all others during that period of time -- a type of 'news spike' [see Figure 8]. Of the 174 articles from 1981, 110 (63%) were focused on takeover issues. This can be explained by the tendency of public issues to

follow 'issue-attention cycles,' from unawareness, to euphoric enthusiasm, to a decline of

interest, and finally to apathy (Downs, 1991).

FIGURE 8: NEWS 'SPIKES'

Takeover Issues -- Illustration of a News 'Spike'
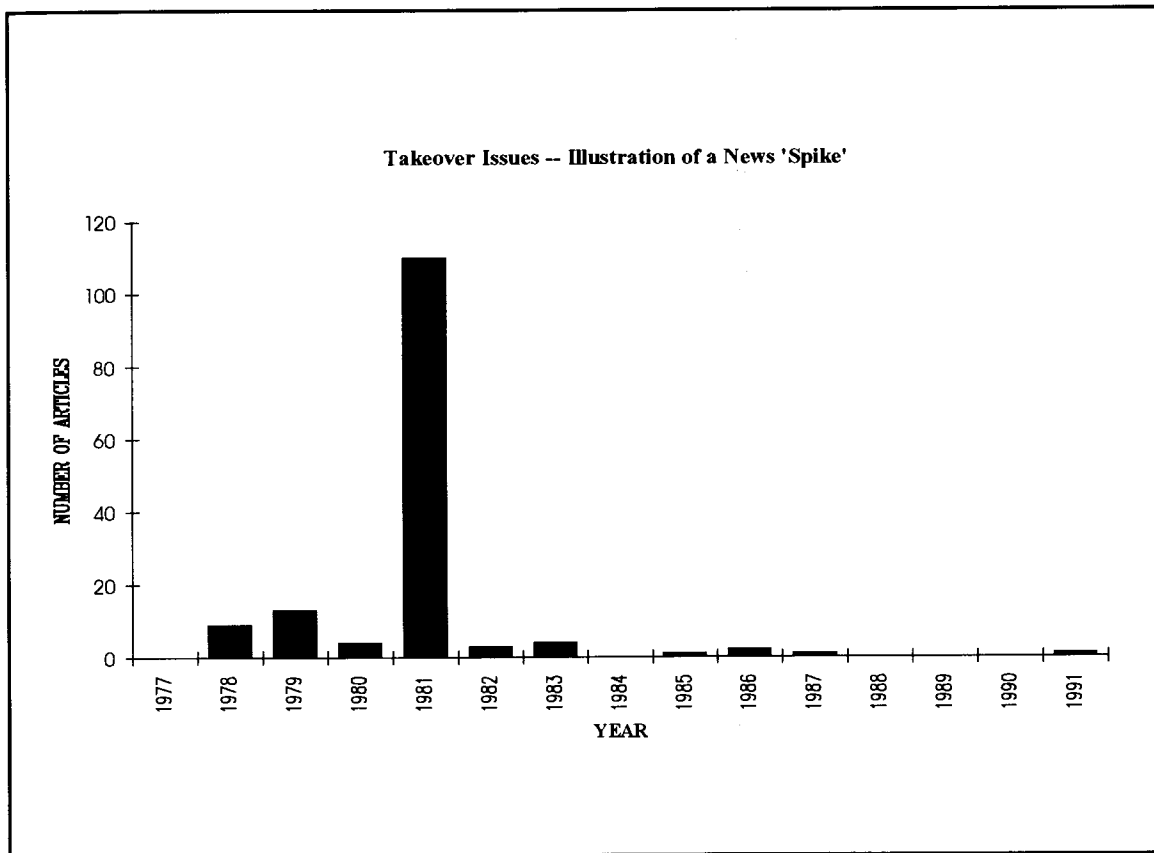
One implication of such a news spike is the intense focus of attention on the focal issue during that period. It might be inferred that the issue of the takeover of this Canadian based company was deemed by the media to be important to the public. Second, news deemed salient has the potential to overshadow other news. During the first three quarters of 1981, at the peak of takeover reporting, there was a total of six articles in the categories of Negative Business Trend and negative Employee Issues (i.e., layoffs, plant closures). The fourth quarter of 1981 saw a rise in this category up to 16 negative articles. The four quarters of 1982 showed a surge in such articles (respectively -- 12, 16, 9, and 14). This may signal media neglect of the coverage of economic hardship that was beginning to befall ForestCo, in favour of the more 'interesting' takeover issue. It should thus be recognized that interesting, newsworthy issues will take precedence over more routine reporting of potentially more important items. This may or may not be in the interest of corporate managers.

One implication of news spikes is that a firm may have a greater degree of voice over a spike issue for its duration, because of intense public interest. In the case of the major takeover, ForestCo took the opportunity to utilize their media voice, as evidenced by these headlines:

> 3/14/81 "ForestCo calls [bidding company's] offer too low";
>
> 3/25/81 "ForestCo welcomes offer"; and
>
> 4/7/81   "ForestCo recommends [second bidding company's] offer."

In short, a firm has media voice during times of news spikes, and perhaps even a greater degree of voice than at other times. A potential problem, however, is that voice over other, less interesting issues may be minimized. A firm's public relations personnel may have to

work hard to get messages related to other important issues into print. Further, problematic issues may be hidden under the shadow of dominating news spikes.

Labour Relations. The category of labour relations is a fourth set of news articles that has the potential to impact ForestCo's corporate image. ForestCo's legitimacy as an employer may be affected by its media representation. Much of this category can be viewed as the reporting of labour issues by an independent third party -- the press (e.g., "Poisonous chemical sparks ForestCo walkout": Jan 9, 1981). There are also articles reported from the company's point of view (e.g., "ForestCo seeks more Indian employees": June 19, 1991), as well as from the perspective of employees (e.g., "Unions unhappy with proposed marriage": Sept 4, 1982). Like the Environmental subset, then, the Labour Relations subset is accessed by both ForestCo and its stakeholders -- in this case employees.

What presents a threat to ForestCo in the realm of Labour Relations articles is the nature of the content. There is news of strikes, walkouts, and employee dissatisfaction, which are issues that seemingly portray a climate of conflict and mistrust. Eighty-three of the ninety-four articles, or 88%, in this data subset, so qualify. The most positive of the Labour Relations items are of dispute resolutions (e.g., "2 ForestCo disputes resolved": Sept 17, 1981). For the most part, however, articles discuss the disputes themselves (e.g., "Forest unions drop rivalry to battle ForestCo": 11/23/82). This negativity was found despite the fact that the Labour Relations category does not include the inherently negative issue of layoffs, which are instead included in the Employee Issues category. Further, no category contains

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articles that might counter this negative portrayal of employer-employee strife. There is an absence of articles depicting the company as a good employer, despite evidence in the company's own publications that it goes out of its way to attend to human resources (e.g., concern for employee wellness as through the creation of an Employee Assistance Program).

These findings reinforce media focus on negative issues, which may be of public interest. Poor labour-management relations are apparently deemed more newsworthy than positive information on progressive human resource and labour relations practices. Because of this, corporate public relations practitioners should consider targeting this issue with strategic communications. Inaction may lead to an adverse effect on corporate outcomes. First, a company with an image as a poor employer might have difficulty attracting, motivating, and retaining top quality human resources. Similarly, a negative image in this realm might deter investment. As an example, consider the headline: "Costly ForestCo strike worries U.S. buyers": Mar 23, 1983). Financial resources might be at risk as the company loses sales due the behavioral implications of stakeholder perceptions. Corporate strategies might also be affected if public legitimacy is so low as to incite stakeholder action. Consider the headline: "Union attacks ForestCo's Leningrad mill proposal": Feb 5, 1990). If this type of issue was widely publicized, consumer and government stakeholders might take action to block company plans in order to support local labour. This in turn might block company growth and constrain financial and material resources (i.e., block larger markets and restrict forest land access).

A continuous focus on labour strife might also serve to perpetuate such conflict, which in turn could serve as a force against changing the pattern. The image of labour-management relations portrayed in the press might hinder a possible company goal to improve labour relations for the purpose of becoming more competitive. Image management is therefore an important force that should be used to facilitate company goals -- goals that can face resistance from a poor print media image and low legitimacy.

Summary. Media have the power to select certain issues for attention, and to give them more or less emphasis. In the case of ForestCo, it was found that there are eight main issues on the public agenda: (1) Environmental Issues; (2) Takeovers, Mergers, and Acquisitions; (3) Government/Legal Issues; (4) Labour Relations Issues; (5) Employee Issues of Layoffs, Shutdowns, Recalls, and Reopenings; (6) Positive Business Trends; (7) Negative Business Trends; and (8) Standard Financial/Operational Issues. Six of these were identified via multidimensional scaling, and the other two were found to overlap the six clusters, so were separated for the sake of clarity. Once the categories were identified, specific trends were noted. Of particular interest to ForestCo are the following trends: increasing environmental awareness; heavier emphasis on negative business/economic news than on positive; a tendency for the media to fixate on unique news such as takeovers, often to the exclusion of other news; and an overwhelming presence of negative labour relations news. The eight media themes identified do not constitute image directly; rather, they bear the information that contributes to the formation of corporate image. Monitoring media agendas is an important

strategic function, because it provides insight into the foundation of a company's image. The logical step after *monitoring* image is to *manage* it.

Managing Corporate Image

Image monitoring would be academic if corporations had no recourse to the setting of their image. Managing image can involve two areas of change: changing contentious business practices, and changing public misunderstanding (Burns, 1991). No amount of media image management will increase acceptance of corporate behaviour that is unethical or illegal (Marken, 1990). Corporations should first ensure that operations are consistent with the interests of important stakeholders. But when behaviour *is* in line with stakeholder expectations, misperceptions may still occur. As such, corporations may accrue negative images that are inaccurate. Such cases require strategic communications campaigns.

Public relations is a strategy that is premised on the possibility of external media access. This makes image management a real possibility. Print media are accessed by external parties. Information from press releases is often used as the basis of news stories, and may even be used verbatim (Turow, 1989). The term 'information subsidy' (Gandy, 1982) describes a situation where companies gain media access. Journalists constantly require vast quantities of information, and are therefore often responsive to the type of 'pre-packaged' information that is provided about companies from corporate agents. In short, print media access is exchanged for a supply of information presented to journalists in a form that is easily

published.

Public relations (PR) is defined as the process of exerting control over 'evaluative predispositions' (e.g., attitudes, images) and subsequent behaviours of relevant publics (Miller, 1989). It is about issue management, management of "the corporate perception process", and "the correction of incorrect perceptions" (Traverse-Healy, 1987: 5). Because of the information subsidy phenomenon, companies have an opportunity to proactively manage their image through public relations. It is up to PR practitioners to analyze external business environments, interpret them, and build communicative relationships with them (Harrison, 1991). Media relations, while only one part of a PR program, are still one of the most effective ways for an organization to reach relevant publics (Haywood, 1987). This is due in part to the fact that media messages are deemed more objective and credible than messages that are more clearly from the perspective of the company (Gandy, 1982).

If public relations efforts are effective, corporate messages will in turn shape the attitudes and views of the public towards the company. Based on this argument, ForestCo should be able to gain print media access via public relations. Several headlines in the data set lend credence to this claim. Consider, for example, these headlines from the Environmental Issues subset:

12/11/80 "ForestCo attacks odour at Harmac mill";
09/25/89 "ForestCo denies log plans violate edict";
03/31/89 "ForestCo defends record on logging";
01/23/90 "Forest giant issues warning" [about the potential layoffs that will accompany stiffer environmental regulation]; and

01/09/92   "Clayoquot debate blamed as ForestCo chops 55 jobs."

These headlines demonstrate ForestCo's perspective, and appear to be based on press releases or direct company reports. Such articles lend support to the assertion that media access is possible in the realm of environmental issues.

Also consider the following headlines from the Positive Business/Economic Trends subset. These headlines also demonstrate corporate print media access:

04/05/77   "Cost control key to ForestCo profits";

11/19/82   "ForestCo marketing key to success"; and

05/12/85   "Quality remains a key."

Such headlines illustrate ForestCo's public relations efforts to highlight how their proactive strategic planning helped to achieve success.

Other headlines from various categories further demonstrate the use of public relations. Consider these headlines which are defenses offered by ForestCo:

07/08/78   "ForestCo denies taking advantage of poor Alabama blacks";

06/01/80   "ForestCo says it's not hiding timber as NDP charged in legislature"; and

02/05/82   "ForestCo defends its sale of logs to China."

Unlike the previous category, less pleasant issues are being attached to ForestCo's name in these news items. In response, the company appears to be using media voice to defend its actions.

Still other headlines display optimistic predictions of future business outcomes:

09/15/77   "No 'bloodbath' expected at ForestCo";

04/23/80   "ForestCo bullish about '80s";

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02/03/83   "ForestCo sees '83 turnaround"; and

11/05/87   "ForestCo expects strong demand through 1988."

There are also cautious predictions offered by ForestCo:

02/24/82   "Some firms may die, ForestCo chief warns";

12/21/82   "ForestCo chief sees slow recovery";

09/16/83   "Forest giant 'wary'"; and

04/03/88   "'Danger ahead.'"

The purposes of these latter two groups seem to be at odds with each other. It is also an interesting point that ForestCo would offer pessimistic predictions, especially in the face of a negative media bias. The reason for this may be the challenge that corporate executives face with respect to public opinion. Any communication that raises expectations unrealistically is dangerous, since actual performance will be monitored (Bettman & Weitz, 1983). Shareholders awaiting dividends will be disappointed if expectations are high, and then performance outcomes are less than expected. Similarly, a backlash from those affected might be provoked if there are extensive layoffs without warning; this may be perceived as callous and cruel. In such cases lower expectations would seem desirable.

On the other hand, stakeholder *optimism* is important for different reasons, such as the acquisition of new investment capital or increased employee confidence. In hard times, one argument is that advanced warning and honest disclosure may lead to faltering employee performance because of the fear of layoffs or concessions. Rumours of layoffs may have severe consequences, which would be particularly damaging if the predicted measures need not be carried through after all. Such potentialities would encourage positive corporate

communication in order to restore optimism and confidence.

Consequently, a fine line must be maintained between too optimistic an outlook, and one that is too pessimistic. This need for *balance*, in turn, helps to account for the fact that both positive and cautious headlines appear intermittently, yet often concurrently over the 15 years for which data was collected. Consider the following headline pairs:

02/19/79	"ForestCo looking for big year," and
04/27/79	"ForestCo profit forecast to drop in next 3 quarters";
06/26/81	"[ForestCo CEO] sees hope for ForestCo in '82," and
07/23/81	"ForestCo 'concerned' as earnings fall";
12/13/82	"ForestCo pins hopes on 1983 after $100 million loss," and
12/21/82	"ForestCo chief sees slow recovery"; and
11/05/87	"ForestCo expects strong demand through 1988," and
11/05/87	"Market fall makes ForestCo cautious".

Mixed messages are presented here, yet they were printed relatively proximately in time. Perhaps such subtle warnings serve to ease the inevitable backlash if hard times do arrive. And perhaps optimistic outlooks help to balance the negative, so as to not create undue panic or excessive speculation. This strategy becomes important when one considers that investors typically overreact to unexpected and dramatic news events (DeBondt & Thaler, 1985). Collectively, these articles may be part of a *balance strategy* that is being used in advance, to smooth and control stakeholder reaction.

Headlines like the ones presented above illustrate the possibility of achieving print media voice, thus making public relations a useful endeavour. In general, image management

requires proactive strategic action, often involving communication. Communication is important because image has been found to be partially formulated on information available at a given time (Gatewood, Gowan & Lautenschlager, 1993). It is therefore an important strategic business function to ensure that important company perspectives are constantly communicated to relevant publics (Kekst & Freitag, 1991; Dann, 1991). From the data it appears that ForestCo has indeed accomplished this. Once media access is achieved, four recommendations help to ensure that communication campaigns are successful.

First, the content of messages should be aimed toward stakeholders. An open dialogue must be maintained, in which the consistency of company and stakeholder interests are emphasized (Evans, 1987). Stakeholders need to be informed about company activities that are of interest to them (Bromley, 1993; Garbett, 1988). For example, investors and lenders need to be informed about company operations, particularly if management is considering a financial restructuring, merger, or other major change (Kekst & Freitag, 1991). Employees should similarly be kept informed about corporate changes, and their input should be sought when possible. Keeping open channels of communication with stakeholders and seeking feedback will help increase the legitimacy and credibility of business operations. The interests of stakeholders should be a constant consideration on the part of business executives and their communications practitioners. Their interests should be anticipated and responded to in advance (Lukaszewski, 1990).

Second, a strategy of balancing both optimistic and cautious messages is viable. This might

be the most appropriate tactic for any business organization in which actual outcomes are uncertain. Too positive or too negative a forecast are associated with many disadvantages, particularly when actual outcomes depart from expectations. Despite the need for realism and balance, however, stronger emphasis on the positive than the negative is important. This is particularly true given the media's innate focus on the negative (Staw, McKechnie & Puffer, 1983).

Third, in the case of communicating undesirable outcomes, 'institutionalized structures and accounts' can be used (Elsbach & Sutton, 1992). The premise of this argument is that when *means* are seen as legitimate by stakeholders, *outcomes* (particularly failures) will be more readily accepted. By presenting 'rational accountings' of how institutionally accepted procedures and practices were employed, the blame is likely to be at least partially attributed to external factors. Consequently, regardless of outcomes, the organization may be seen as rational, credible, and legitimate. This in turn should lessen the adverse impact of poor performance.

Finally, the nature of messages communicated should be considered. It is important that corporate communications be direct, factual, and thorough. It is important to be as honest as possible (Bromley, 1993; Ott, 1992; Dold, 1991). Organizations should be thoughtful, responsible, and consistent (Kekst & Freitag, 1991). Based on some of the findings of this study, it is also clear that corporate messages should be compatible with media tendencies. News has a higher likelihood of being published if it is entertaining, unusual, unexpected,

shocking, and dramatic (Evans, 1987). Material should be relevant, topical, accurate, fast, comprehensive, substantiated, concise, unbiased, exclusive, or from a special angle (Haywood, 1987). In short, messages should be sincere, yet 'newsworthy' (Turk, 1991).

Discussion

It has been argued that media presentations of company news are important because of the capacity to shape image, and because constituents use this information in their decision making processes. This can in turn affect business outcomes. Empirical data from this case study demonstrated that such foundational information can be identified by way of an *image audit* of press media articles written about the company and its activities. Categorization of these articles should be based on multiple respondents' perceptions of recurrent themes, which define the media issues that are channelled to stakeholders. In the case of ForestCo, eight categories were identified as salient. Obtaining knowledge about the facets that comprise an image is important because strategic communications cannot be targeted toward the *ideal image* until the *actual image* is known (Strauss, 1992). Without this critical knowledge, public relations efforts will merely be shots in the dark.

After *monitoring the* company's image, the next step is to attempt to *manage* it. Evidence from the data showed that ForestCo did gain print media access, using public relations to take advantage of information subsidies. For ForestCo, findings of this study offer several implications for the management of their image. First, corporate communicators should

continue to exert voice over issues in which media access is achieved. For ForestCo it was deemed that significant voice has been gained within the realm of environmental issues. Communication efforts should continue to be targeted at this issue, since relative success has been achieved.

A second implication is that ForestCo should balance optimistic and cautious outlooks, but with a slight emphasis on the positive. There is a need for optimistic predictions in order to continue attracting crucial investment capital. On the other hand, speculation that is too optimistic in the face of hard times will lead to cynicism, anger, and potential backlash. A slight emphasis on the positive is recommended in order to counter the negativity of the news, which has been substantiated by the current study.

A third implication of findings is that ForestCo should take advantage of media voice over salient issue during times of news spikes. It is also important, however, to continue to monitor nonspike issues for potential opportunities and threats, and to work harder to gain media access along these peripheral issues. Failure to attend to issues that are shadowed by a news spike may have unexpected negative consequences.

A final recommendation is that ForestCo should work to reduce the deficit of positive articles in the labour relations category, and others that are dominated by negative issues. This is especially important if the company perceives that there are many positives of which the public is not aware. This strategy is one of correcting misperceptions, since there is

information that has not been put forward by the press or by the company -- information that has not yet been communicated to relevant stakeholders.

In conclusion, this study has identified a set of issues about ForestCo from a longitudinal print media data set. These issues bear information that potentially impacts on ForestCo's image, so should be monitored. Several trends were identified within the categories. It was recommended that corporate communicators act upon the information discovered in ForestCo's print media image.

Limitations of the Present Study

A first set of limiting issues pertains to assumptions that are implicit in the content analysis performed here. Although content analysis allows one to make meaning out of a broad data set, it also has some weaknesses. One important issue is the inherent assumptions that: (a) the frequency of appearance of a theme is an indicator of concern, focus of attention, value, or importance; and (b) that each unit of content is given equal weight. These assumptions may be problematic. The location of an article within a newspaper may have an effect on its relative importance. Placement of articles may affect readers differently, but this was not accounted for in the present study. The intensity of the item can also have a differential effect on attitudes, values, and opinions (Holsti, 1969). The above assumptions were made in this study to facilitate analysis. It is possible that these assumptions do not hold up in reality, and may, therefore, represent a potential limitation of the study.

The nature of the data presents a second area of the study's limits. Since articles were obtained from a library clipping file, there is no way to ensure complete and accurate coverage. Further, articles were collected on the basis of their mention of ForestCo. Some articles, however, might not have ForestCo as a main focus. Articles might instead be about the forestry industry, with only a brief mention of ForestCo. Also important is the local sourcing of the majority of articles. This study provides no means for understanding the image held by nonlocal stakeholders. Another issue is that many articles and headlines reflect multiple themes. Since classification required mutually exclusive and collectively exhaustive categories, multiple themes were not accounted for in headlines. A category hierarchy was used to classify headlines in cases of multiple themes. In a practical application of this method, prioritization should be based on the interests of the organization in question.

Sampling is a third area of concern. The use of only 20 respondents to identify themes in the data may be problematic. The aim here was to approximate the perception of multiple, divergent stakeholders. As such, a diverse set of respondents should be used in the MDS analysis in order to provide a better estimation of the perceptions of multiple stakeholders. The obvious tradeoff to this is the increasingly cumbersome task of creating exceptionally large proximity matrices for a large number of respondents.

Another issue is that this study did not gauge perceptual differences across stakeholders, nor identify the behavioral ramifications of the image issues. Further, a facet approach to image was used here, when in fact perception may be better characterized by a holistic model.

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Multidimensional scaling results present a fourth limitation. Despite the successful use of MDS to improve the reliability of the initial classification scheme, results showed a low correlation coefficient and a high stress value. As was discussed, this was in large part due to the exceptionally large data set that was used, as well as the input of 20 different respondents. Multiple issues within headlines also contributed to these suboptimal statistics. To be fully confident in the findings, however, the correlation coefficient should be higher, and the stress value lower.

A final limitation pertains to generalizability. The use of a case study presents problems with external validity, or generalization. Although the issue identification methodology is somewhat generalizable across companies, the use of a case study may limit generalizations about image issue findings to other organizations. This case study focused on a single company that was longitudinally studied for its domestic print media image. No conclusions can be made about the images of other organizations, particularly multinational firms that are being studied at a single point in time.

Directions for Future Research

Future image research that intends to build on this work should begin with a replication of the procedures used here. Additional research will either lend support to the method used, or will suggest that modifications are necessary. Similar studies could also be done on other companies in the same and different industries, with the goal of identifying common and

idiosyncratic image facets.

A logical next step in the research is to move from the facet based image measurement used here, to a more holistic measure. A measure of ForestCo's composite image could be compared to the facet information found here. This would elucidate the issue of whether or not print media images affect holistic impressions of organizations. A further angle is to compare the holistic images held by different stakeholders. Future research might also explore the connection between image and behaviour.

APPENDIX 1: INITIAL CODING SCHEME FOR HEADLINE DATA

A: Standard Operating Issues

This category encompasses standard business operations. Any news that is fairly routine and normal in the forestry industry should be coded A. This category incorporates the following types of issues:

- -share issues
- -standard stock information
- -stock listing
- -loans
- -costs of raw materials
- -management succession
- -wages
- -product price increases/decreases
- -cash flow
- -new products
- -mergers
- -auctions
- -one-time losses (e.g., as by fire)
- -increases and decreases in stock prices

*Note that mergers are included here, but that acquisitions and divestitures belong elsewhere.
*Note that stock issues are in this category, but when related to takeover or dividend payment, they belong in other categories (F and B+, respectively).
*Note that issues that do not fit well elsewhere should be grouped here.

B+: Business Trends--Growth and Success

This category pertains to articles about company growth and success. Issues subsumed here include:

- -acquisition of new assets, plants, and businesses
- -new investments (including international)
- -expansion
- -profitability
- -increased sales
- -recall of workers after layoffs
- -reopening of plants after shutdowns
- -building new plants
- -increased production
- -reduced losses
- -dividend payments
- -improved credit rating

Note that speculation about growth and improved profitability belong elsewhere (C+).

Business Trends--Decline and Hard Times

This category is about corporate decline or any proof that times are tough and the company is suffering. Issues that fit this category include:

        -divesting of assets
        -losses
        -decreased sales
        -layoffs
        -shutdowns
        -streamlining
        -reduction of profit/gains
        -pay cuts
        -decreased credit rating
        -wage concession demands

*Note that speculation about decline and decreased profitability belong elsewhere (C-).

C+: Speculation of Future Trends--Positive

This category specifically refers to corporate prediction of positive future trends. This category is more of a subjective opinion than the B group. Related issues include:
-optimistic outlook
-denying negative future outcomes
-supporting positive potential

C-: Speculation of Future Trends--Negative

This category specifically refers to corporate prediction of negative future trends. This category is more of a subjective opinion than the B group. Related issues include:
-a cautious outlook
-denial of the likelihood of positive outcomes
-support of negative hard times

D: Issues Over Which a Particular Stakeholder is Exercising Voice

Articles of this nature have a particular stakeholder voicing an opinion. Note that this does not include labour relations issues (E), environmental issues (De), forecasts of future trends (C), or takeover (F); other categories will subsume these issues. This category includes:

        -company PR
        -company denying a social ill
        -company trying to convince the public of something
        -image-related issues
        -touting the keys to the company's success
        -US/Canada tariffs (this issue is treated from the perspective of the company, therefore it has been added into the (D) category)
        -the company defending some activity or practice

De: Environmental Issues
This category deals with any current environmental issues. These include:
-land use
-forestry/logging practices
-chemical emissions
-chemical/substance spills
-environmental cleanup issues
-reforestation
-environmental allegations/fines
Note that these can be from the perspective of the company or public groups. Note that this category overrides others such as (G) legal issues, (D) voice issues, (E) labour relations issues. In short, if the environment is involved, the article belongs in this category.

E: Labor Relations Issues
This category includes labor related issues such as:
-union strife (strikes, walkouts, etc.)
-employee dissatisfaction
-employees concerns (and walkouts) over such issues as health standards
-employee-related legal issues (e.g., wrongful dismissal)
-WCB orders
Note that this category does not include environmental issues, which belong in De, or employee concerns about health issues, which belong in D.

F: Takeover Issues
This involves all articles dealing directly or indirectly with takeover bids in which ForestCo was involved. Note that any issues related to the takeover (e.g., increased stock value) are included here.

G: Government/Legal Issues
This category deals with issues of government intervention and any legal suits that ForestCo is involved in. Relevant issues include:
>   -investigations
>   -law suits
>   -fines
>   -allegations
>   -ministry orders
>   -government intervention

Note that articles that are related to the environment, labor relations, and takeovers belong in other categories (De, E, and F, respectively).

Final Notes:

*Some headlines are conducive to more than one categorization. In such cases, it is important to make a judgment as to what the central focus of the headline is. Do not give a headline more than one code.

*Finally, the content of all articles cannot be inferred from their headlines. Mark any such cases, or other cases of uncertainty, with an "X"; further information will be supplied at a later time.

ENV	4/11/81	Pollution charges set
ENV	10/2/87	ForestCo plans forestry campaign
ENV	2/19/88	Conflict feared in forest audit
ENV	3/31/88	Industry voice touted
ENV	7/22/88	ForestCo seeks to halt building of trails
ENV	3/28/89	ForestCo names veteran to new development vice- presidency
ENV	4/12/90	ForestCo study 'a sad joke': Carmanah logging research under attack:ForestCo says trust us, critics say no way
ENV	5/3/90	Mill malfunction dumps oily mess: Residents voice anger over cleanup
ENV	6/23/90	Owl protection to aid producers, ForestCo officials say
ENV	9/8/90	ForestCo to close mill for week to aid fish
ENV	11/23/90	ForestCo's rating chopped
ENV	2/19/91	ForestCo to tell its story to TV audience
ENV	4/17/91	Forestry giant lifted into black by its affiliates
ENV	6/15/91	Island communities to learn ForestCo's tree farm plans
ENV	6/16/91	Chainsaws vs. chains: ForestCo's five-year plan spurs protestors
ENV	6/16/91	ForestCo unveils major logging plan
ENV	6/20/91	War in ForestCo's Island farm
ENV	8/23/91	Commissioner to probe ForestCo's job, timber options
ENV	10/8/91	ForestCo nods to foes' test project
ENV	10/30/91	B.C. won't charge ForestCo for PCB spill

G/L	4/1/77	No secrets uncovered in ForestCo investigation
G/L	4/4/78	ForestCo's Knudsen paid $271,662 last year
G/L	12/29/78	Bennett takes stand on BC interests
G/L	9/27/79	ForestCo price-fixing defendant
G/L	6/20/80	Grand jury probes lumber sales
G/L	2/19/81	ForestCo case settled for $365,000
G/L	3/18/81	Policy in Victoria makes ForestCo target for big takeover
G/L	3/25/81	BCRIC and free enterprise
G/L	3/27/81	The free enterprise spirit
G/L	3/31/81	Waterland holding court
G/L	4/3/81	Helliwell takes nod for BCRIC confusion
G/L	4/5/81	BCRIC stands to make gains out of confusion in ForestCo drama
G/L	4/9/81	BCRIC rejects 'predator' label
G/L	11/8/81	ForestCo indifferent to immigration policy, MP says
G/L	7/2/83	Forestco shares
G/L	10/6/83	Chinese shelve BC mill plan
G/L	3/18/87	ForestCo jacks prices on newsprint for U.S.
G/L	5/3/88	ForestCo quarterly earnings reach record $96.1 million

G/L	2/5/90	Union attacks ForestCo's Leningrad mill proposal
G/L	11/5/91	ForestCo signs $45 million R&D deal: Agreement with government seen as protection for research jobs

LR	1/22/77	A shadow of its former self
LR	8/9/77	Forest firm continues management streamlining
LR	7/18/78	Mystery lady averts strike at Harmac mill
LR	9/16/81	ForestCo shutdown feared: 57 workers threaten operations
LR	10/23/81	Slump means axe is out at ForestCo
LR	1/21/83	Forestco rating cut
LR	5/27/83	ForestCo to raise cash from stock sale
LR	2/23/84	Mill puts Chemainus back on map
LR	6/20/84	Loggers walk to protest suspension
LR	11/10/84	Psst... Want to hear ForestCo's secret?Forest giant's outlook bright
LR	2/15/85	ForestCo to sue union
LR	4/27/85	Estevan logging halted
LR	11/27/85	Harmac mill set to close
LR	10/4/88	ForestCo to improve newsprint mill
LR	4/6/89	ForestCo holds the line on its senior executives' pay for 1988
LR	4/18/89	ForestCo results fuel stumpage debate

BUS	8/5/77	Harmac to close for two weeks
BUS	9/15/77	No 'bloodbath' expected at ForestCo
BUS	3/23/78	ForestCo walkout short-lived
BUS	7/13/78	Ex-ForestCo staffer charged
BUS	4/21/82	More layoffs expected
BUS	7/6/82	ForestCo to go ahead with China deal
BUS	8/21/82	ForestCo staff faces more layoffs
BUS	11/5/82	ForestCo severance pay hits $11.5 million
BUS	11/19/82	ForestCo marketing key to success
BUS	12/4/82	ForestCo: Profile of a very rough ride
BUS	3/22/83	No solution near for ForestCo
BUS	8/3/83	ForestCo back in the chips
BUS	3/10/85	ForestCo climbing up
BUS	2/9/86	ForestCo's net profits jump 122%
BUS	5/14/86	Victoria won't pay refund owed ForestCo
BUS	5/26/91	Harmac pulp mill to close for 2 weeks

SOI	1/8/79	Huddle on bid for ForestCo
SOI	3/23/79	ForestCo looking to cash-flow growth
SOI	6/16/79	Forest industry will lay out $1 billion
SOI	6/23/79	ForestCo signs major China deal
SOI	2/13/80	ForestCo hiking prices
SOI	2/14/80	ForestCo has another record year
SOI	5/9/80	ForestCo office building possible joint offer candidate
SOI	11/13/80	ForestCo loaned $50 million below prime
SOI	3/25/81	Noranda joins battle for control of ForestCo 3
SOI	4/7/81	ForestCo board gives nod to Noranda bid
SOI	4/25/81	Noranda obtains 49.8% of ForestCo
SOI	8/14/81	ForestCo slows spending plans
SOI	1/23/82	ForestCo unveils slimmer corporate look
SOI	4/20/83	Bailout after Rhetoric
SOI	6/25/86	ForestCo chief raps U.S. argument
SOI	11/28/86	ForestCo
SOI	6/3/87	ForestCo drawn tighter into Noranda's embrace3
SOI	11/8/87	ForestCo puts Port Alberni plans on hold
SOI	1/2/91	Tree felling debate now a political issue

Oth	8/26/79	Pulp workers defy board ruling
Oth	12/7/81	ForestCo to transfer jobs out of Vancouver
Oth	3/5/82	Future - 'all bad news': TV callers roast ForestCo official
Oth	5/14/82	Some forest workers back
Oth	3/8/83	Mill closure sparks timber rights fray
Oth	9/6/85	Fears stall, burning of sawdust
Oth	3/5/86	ForestCo wants to drop NYSE listing

ENV: Environmental Issues

This category deals with issues surrounding ecological environmentalism. Note that these can be from the perspective of the company or public groups. Issues here include:

- land use
- forestry/logging practices
- chemical emissions
- chemical/substance spills
- environmental cleanup issues
- reforestation
- environmental allegations/fines

TMA: Takeovers, Mergers, & Acquisitions

This category includes articles dealing directly or indirectly with takeover bids, mergers, and acquisitions in which ForestCo was involved. ForestCo could be on either side of the takeover effort. Mergers and acquisitions, including international ventures, should be included here. Note that any issues related to a takeover (e.g., increased stock value, government intervention) should be included here.

G/L: Government/Legal Issues

This category deals with issues of government intervention and any legal suits that ForestCo is involved in. Relevant issues include:

- investigations
- law suits
- fines
- allegations
- ministry orders
- government intervention
- court cases (e.g., wrongful dismissal)
- Workers' Compensation Board (WCB) rulings

LR: Labour Relations Issues

This category includes labour-related issues such as:

- union strife (strikes, walkouts, etc.)
- employee dissatisfaction
- employees concerns or walkouts over issues such as health standards

EI: Employee Issues of Layoffs, Shutdowns, Recalls, and Reopenings

This category subsumes employment issues related to jobs, layoffs, and recalls. This includes:

- closure of plants/mills
- layoff of employees, and related issues
- reopening of plants/mills after shutdowns
- recall of workers after layoffs

BUS+:   Positive Business/Economic Trends

This category pertains to articles about company growth and success, including an improvement in conditions after hard times. This category should also include <u>speculation</u> about positive outcomes (even from the company's perspective).   Issues subsumed here include:

- profitability
- increased sales
- increased production
- reduced losses (and upward trends)
- dividend payments
- improved credit rating

BUS-:   Negative Business/Economic Trends

This category is about corporate decline. It includes any indication that times are tough, or that the company is suffering. <u>Speculation</u> about negative trends should also be included here. Issues that fit this category include:

- losses
- reduction of profit/gains
- decreased sales
- negative trends
- shutdowns
- streamlining (Note: Layoffs belong in a separate category)
- pay cuts; wage concessions
- speculation of decline and decreased profitability

SOI: Standard Financial/Operating Issues

This category encompasses standard business operations. Any news that is fairly routine and normal for a corporation should be coded SOI. This category incorporates the following types of financial and operational issues:

- share issues, standard stock information, stock exchange listing, changes in stock prices
- loans
- strategic plans
- costs of raw materials
- management succession and turnover
- top management wages
- product price increases/decreases
- cash flow
- new products
- new assets, or investments (BUT not mergers, acquisitions, or takeovers)
- divesting of assets
- sale of plants/assets
- auctions
- one-time losses (e.g., as by fire)

CATEGORY HIERARCHY

Some headlines may fit in more than one category. In such cases, use the following CATEGORY HIERARCHY of priorities to choose which category to use. A headline must be placed in only one category, and this chart will help resolve the problem of deciding which category to use when there are multiple issues. For example, in the case of a headline containing the topics of both "takeover" and "government," the Category Hierarchy places "takeover" higher than" government," so the takeover category should be used.

Category Priority
(ENV is 1st priority; SOI is last priority):

ENV
TMA
G/L
LR
EI
BUS(+)
BUS(-)
SOI

AMBIGUOUS HEADLINES:
If you are unable to categorize a headline, place it in the "X" pile.

1/15/77	ForestCo out to raise $50 million
1/20/77	Lumber transport cost cut urged
1/22/77	A shadow of its former self
1/29/77	ForestCo dividends to resume
2/16/77	$85 million sought by ForestCo
2/23/77	ForestCo plans major BC upgrading
2/23/77	ForestCo profits show turnaround
2/24/77	ForestCo will spend $450 million in BC
2/24/77	$450 million over 5 years: Forest spending plan welcomed
2/24/77	ForestCo pays executive at ICBC
3/9/77	2200 in bush facing layoffs, too many logs
3/9/77	Log surplus prompts layoffs1
3/22/77	ForestCo president putting new accent on management
3/26/77	Major reshuffle at ForestCo aimed at streamlining operations
3/26/77	ForestCo regroups forces in shakeup at top
3/30/77	End of an era at ForestCo: Clyne is stepping down
4/1/77	No secrets uncovered in ForestCo investigation
4/1/77	ForestCo chief makes $250,000
4/5/77	Cost control key to ForestCo profits
4/6/77	Capital change for ForestCo
4/13/77	Worker suggests Knudsen pay cut if ForestCo in trouble
4/13/77	ForestCo says 'nonsense' to privacy charge
4/20/77	Fallers lose legal suit over unpaid 1972 wages
4/20/77	Labor unions told to press for ForestCo payments inquiry
4/27/77	ForestCo to look at own bureaucracy
4/27/77	ForestCo profits getting back on the track
5/2/77	ForestCo must pay $60,000 to fired executive
5/3/77	Former ForestCo executive given $59,760 for wrong dismissal
5/3/77	Suspended loggers plan to stay off job for week
5/25/77	Knudsen explains stance on labor
8/5/77	ForestCo plans pulp shutdown
8/5/77	Harmac to close for two weeks
8/9/77	Forest firm continues management streamlining
8/12/77	Dispute over 2 men's pay idles 1300 at Harmac mill
8/12/77	Dispute over pair's pay shuts Harmac: ForestCo
8/16/77	Talks fail to end mill wildcat
9/15/77	Oil spill cost set at $230,000
9/15/77	No 'bloodbath' expected at ForestCo
10/7/77	RCMP probes allegations of skimming in log trading
10/29/77	'French connection' hurts profits at ForestCo
10/29/77	ForestCo shows $38 million profit
11/16/77	Head office cutbacks: 54 getting axe at ForestCo

11/23/77	ForestCo pruning unnerves forest industries' council
11/26/77	ForestCo blowing its horn in new PR campaign
12/23/77	ForestCo to increase newsprint prices
1/11/78	44 cases 'resolved': Aftermath of ForestCo job cuts
1/24/78	ForestCo raising mill's output
2/8/78	'Flying Dutchman': No port for ForestCo in union storm
2/11/78	Former ForestCo worker awarded $25,655
2/23/78	ForestCo reports higher profits and sales
3/4/78	RCMP widen probe for kickbacks at ForestCo
3/13/78	ForestCo to offer debentures
3/22/78	New walkout hits ForestCo
3/21/78	Rumors of more ForestCo shutdowns quashed
3/23/78	ForestCo walkout short-lived
4/4/78	ForestCo's Knudsen paid $271,662 last year
4/4/78	ForestCo gets a handle on its shipping losses
4/5/78	Salary of ForestCo boss hits $271,000
4/20/78	1,400 loggers turned away by strikers
4/22/78	LRB orders ForestCo loggers not to picket
4/25/78	IWA walkouts against ForestCo end
4/26/78	ForestCo improves but Knudsen is cautious
4/26/78	ForestCo counters the trend toward fewer wildcats
4/28/78	ForestCo profits get a big boost from the falling dollar
5/11/78	ForestCo's charter loss seen dropping
5/11/78	ForestCo planning to spend $7.9 million in BC
7/8/78	ForestCo denies taking advantage of poor Alabama blacks
7/13/78	Ex-ForestCo manager and his lawyer facing charges
7/13/78	Ex-ForestCo staffer charged
7/13/78	ForestCo guns down trees
7/18/78	Mystery lady averts strike at Harmac mill
7/8/78	200 jobs to be lost in upgrading of mills
8/1/78	$750,000: Log-moving machines lost in forest blaze
9/8/78	ForestCo hoping for a fire-sale price on Reed
9/29/78	ForestCo plans $163m Powell River expansion
9/29/78	ForestCo announces Powell newsprint expansion
10/7/78	ForestCo growth boosts newsprint industry
10/28/78	ForestCo pays extra dividend
12/22/78	Domtar plans $590 million ForestCo bid
12/23/78	Who gets which is a guess, ForestCo may edge out Domtar
12/27/78	ForestCo turns tables on Domtar in takeover battle
12/29/78	ForestCo sticks to Domtar plan, also reviews offer by CPI
12/29/78	Bennett takes stand on BC interests
12/29/78	BC not for sale - Bennett on ForestCo
12/29/78	ForestCo facing a new challenger in takeover fight

12/30/78	ForestCo, Domtar stop counter-bidding for other's shares
1/3/79	ForestCo shares surge as investors bank on CPl takeover
1/3/79	Temporary truce in takeover fight for ForestCo
1/3/79	ForestCo takeover 'bloody disaster'
1/5/79	The status still quo at ForestCo
1/5/79	ForestCo's Knudsen: 'CPl muddied the waters'
1/6/79	Why Black sold Domtar holdings to ForestCo
1/8/79	Huddle on bid for ForestCo
1/10/79	Bennett eyes law to keep ForestCo
1/18/79	Canadian Pacific ends ForestCo Bid
2/19/79	ForestCo looking for big year
2/24/79	ForestCo plays it cool
3/2/79	Court orders halt to royalty picket
3/9/79	Log scalers walk off job
3/21/79	ForestCo sells carton factory
3/23/79	Strong 1st quarter seen for ForestCo
3/23/79	ForestCo looking to cash-flow growth
4/27/79	Declining dollar boosts ForestCo profits
4/27/79	ForestCo profit forecast to drop in next3 quarters
5/2/79	Profit 'bubble' to blow away, ForestCo meet told
6/1/79	Plan to operate N.B. paper mill posing threat to West Coast
6/13/79	China pulp deal unveiled by ForestCo
6/16/79	Forest industry will lay out $1 billion
6/18/79	ForestCo OKs projects
6/20/79	ForestCo signs lengthy pulp agreement with China
6/23/79	ForestCo signs major China deal
7/7/79	ForestCo selling Domtar Shares
7/7/79	ForestCo sells shares of Domtar Inc.
7/10/79	ForestCo sells Domtar shares to Quebec pension arm
7/13/79	ForestCo seeks ban on picketing
7/19/79	Pulp workers' attack on ForestCo 'caving in' after latest board ruling
7/27/79	Record ForestCo 6-month profit nears '78 total
8/9/79	Study session "waste"
8/10/79	ForestCo taps $1 billion capital kitty for $29 million productivity plan
8/11/79	Harmac mill study session turns into full-scale workout
8/15/79	ForestCo hikes price of newsprint
8/17/79	Health study clears workers at Powell River kraft mill
8/26/79	Pulp workers defy board ruling
8/27/79	Illegal outside pickets halt three ForestCo operations
8/27/79	New Brunswick pickets leave ForestCo mills
8/28/79	LRB hears company request to remove sawmill pickets
8/29/79	Brazilian venture 'insignificant' says ForestCo but others do not agree
9/4/79	Harmac workers vote on agreement worked out in dispute over 'hot' pulp

9/11/79	ForestCo sets out Nanaimo revamping plan
9/18/79	ForestCo, Abitibi sign deal
9/19/79	ForestCo president urges more reforestation
9/23/79	ForestCo transportation unit near break-even level
9/27/79	ForestCo offers $8.4m to settle suit
9/27/79	ForestCo price-fixing defendant
12/2/79	NY exchange asked to list ForestCo
12/3/79	ForestCo seeks listing on Wall Street
12/5/79	Sawmill workers laid off
12/11/79	ForestCo buys plants in east
12/11/79	ForestCo to buy plants
1/10/80	No repeat of '75 Knudsen predicts
2/3/80	ForestCo buys plants
2/8/80	Lost jobs in plywood angers IWA
2/13/80	ForestCo hiking prices
2/13/80	ForestCo raises prices of newsprint 8 pct.
2/13/80	French interest dropped: Losses force ForestCo to pull out of pulp firm
2/14/80	ForestCo has another record year
2/17/80	ForestCo lost $25m in France
2/22/80	US redwood shortage a boom for ForestCo
2/23/80	ForestCo sheds its Common Market interest
3/6/80	ForestCo growth outlined in letter
3/19/80	ForestCo plant expansion expected
3/20/80	ForestCo confirms Annacis mill plans
4/1/80	ForestCo president's salary nudging $1/2 million
4/13/80	ForestCo lays off shift workers
4/23/80	Knudsen sees no big layoffs at ForestCo
4/23/80	ForestCo bullish about '80's
5/3/80	ForestCo to become tenant in Daon tower downtown
5/7/80	ForestCo shutdown will affect 192
5/9/80	ForestCo office building possible joint offer candidate
5/17/80	ForestCo to lay off 230
5/18/80	ForestCo laying 380 off at WhitePine
6/1/80	ForestCo says it's not hiding timber as NDP charged in legislature
6/11/80	ForestCo shows interest in buying CANOR
6/20/80	ForestCo, Seaboard subpoenaed in US
6/20/80	Grand jury probes lumber sales
7/28/80	ForestCo goes to market for $175 million
7/28/80	ForestCo sees research spending highly practical investment
7/29/80	ForestCo to expand Alabama plant
7/29/80	ForestCo to build Alabama mill
8/29/80	Island residents oppose log booming lease
9/17/80	ForestCo demands shipping restraint

9/25/80	ForestCo offers shares
10/15/80	Indians file suit over logging plans
11/4/80	ForestCo 'slashing prices of US Atlantic lumber' but inventories down, major middleman says
11/7/80	ForestCo accused of slashing prices: Eastern US wood market in turmoil
11/13/80	ForestCo loaned $50 million below prime
11/18/80	TSE trading boosts ForestCo
11/23/80	Forestco's potential great, says report
11/24/80	ForestCo takeover speculation discounted
11/24/80	ForestCo share activity spurs speculation about a new suitor
11/29/80	Forest major pulls out of Daon tower
12/5/80	Newsprint slump prospect discounted by ForestCo chairman
12/5/80	ForestCo expects to develop growing cash flow over 5 years
12/11/80	$92 million ForestCo boiler set
12/11/80	ForestCo attacks odor at Harmac mill
1/9/81	Poisonous chemical sparks ForestCo walkout
1/12/81	ForestCo 'accepts WCB orders'
1/31/81	ForestCo gets $3.4 million grant for renewable energy plan
2/17/81	ForestCo's new $51 million BC sawmill most expensive, elaborate in world
2/19/81	ForestCo case settled for $365,000
2/19/81	Efficient transportation helps ForestCo build major North African market
2/20/81	ForestCo plans aggressive spending
2/24/81	ForestCo wants industry, government to pool research effort
2/28/81	ForestCo seen as safe haven for investment
3/11/81	BCRIC bidding to control giant ForestCo
3/11/81	BCRIC bids for forest giant
3/12/81	Analysts praise hefty BCRIC offer for control of ForestCo
3/12/81	A pretty good deal
3/12/81	BCRIC and its ForestCo offer: Inside the boardroom: What it means... and outside the boardroom: What it means
3/12/81	ForestCo mum on BCRIC takeover offer
3/14/81	ForestCo calls BCRIC offer too low
3/14/81	Knudsen fights BCRIC offer for ForestCo shares
3/15/81	ForestCo choice bait for many companies
3/15/81	BCRIC gets large loan in control bid for ForestCo
3/15/81	Knudsen disdains hug by 'large bear'
3/18/81	Policy in Victoria makes ForestCo target for big takeover
3/18/81	How much are ForestCo shares worth
3/19/81	ForestCo seen poised for profit gain
3/19/81	BCRIC bid a question of size
3/20/81	ForestCo loses wafer decision
3/20/81	Noranda wanted ForestCo
3/21/81	BCRIC's big plans for ForestCo
3/22/81	Cease-trading order hits ForestCo
3/24/81	ForestCo workers return

3/24/81	$56-per-share offer tops BCRIC's by $10
3/24/81	Noranda launches bidding war with $610 million offer to ForestCo
3/24/81	Offer too low says ForestCo board
3/25/81	5000 called off Island walkout at ForestCo
3/25/81	Offer for ForestCo: Noranda bidding to become No. 1
3/25/81	ForestCo welcomes offer
3/25/81	Noranda joins battle for control of ForestCo 3
3/25/81	Regulatory influences among questions unanswered in Noranda-ForestCo deal
3/25/81	Noranda held talks with BC before it prepared bid for ForestCo
3/25/81	BC waiting, watching takeover
3/25/81	Minister may seek veto on ForestCo
3/25/81	Noranda bid is indication of forest products ambition
3/25/81	BCRIC and free enterprise
3/25/81	ForestCo's door is wide open to more bids from the east
3/26/81	ForestCo stock jumps to $50
3/26/81	A call for caution
3/26/81	ForestCo shares up $4.62 in active trade
3/26/81	Waterland to meet Noranda
3/26/81	ForestCo's size and scope rate it as BC rarity
3/26/81	Other potential suitors stay mum on any plans
3/27/81	Offer for ForestCo spelled out by Noranda
3/27/81	Noranda spells out its takeover proposal
3/27/81	Noranda gives details of offer
3/27/81	US seeks sale by Noranda: BC Forest Products shares on the block
3/27/81	The free enterprise spirit
3/27/81	Bennett walks thin line in sticky takeover bids
3/28/81	Noranda's offer for ForestCo garners little enthusiasm
3/28/81	BC rules for courting
3/28/81	ForestCo bidding war helps boost TSE
3/30/81	Waterland to examine companies bidding for ForestCo
3/31/81	FIRA may block Noranda sale of BCFP
3/31/81	Waterland holding court
3/31/81	ForestCo offers aren't the least bit simple
4/1/81	BCRIC raises the ante in battle for ForestCo 1
4/1/81	Bennett lays out timber law; says BCRIC grasp limited too
4/1/81	Intriguing scenario to Noranda bid
4/1/81	Confusion over takeover policy: Bennett dodges forest issue
4/2/81	If not whim, then what
4/2/81	BCRIC unclear about timber limit
4/2/81	Noranda promises counter move: BCRIC ups bid for ForestCo
4/2/81	BCRIC sweetner heats up battle for ForestCo
4/2/81	Noranda raises ForestCo bid $6 to $62
4/2/81	BCRIC boosts offer for ForestCo shares to $56

4/2/81	New offer puts ball in Noranda's court
4/3/81	Gov't demands 'BC citizenship' before ForestCo takeover would get OK
4/3/81	Noranda raises its bid for ForestCo control to $62 a share
4/3/81	Seeming 'goof': BCRIC stuck with $46 bid for ForestCo shares
4/3/81	Helliwell takes nod for BCRIC confusion
4/3/81	'War' over ForestCo gets minister's blessings
4/4/81	Noranda acquires ForestCo control
4/4/81	We didn't goof, BCRIC says of ForestCo bid delay
4/4/81	Nicer to Noranda than expected
4/5/81	Noranda tied to economy
4/5/81	Waterland aims 'gun' at Noranda
4/5/81	Noranda adds twist to tango of forest giants
4/5/81	Bill in baggy pants
4/5/81	BCRIC stands to make gains out of confusion in ForestCo drama
4/5/81	Victoria, Noranda call truce
4/6/81	TSE Bylaws - Ontario panel muddies ForestCo bidding war
4/6/81	Toronto hearing today in ForestCo purchase battle
4/6/81	The battle for B.C.'s forests
4/7/81	ForestCo recommends Noranda's offer
4/7/81	ForestCo board gives nod to Noranda bid
4/7/81	BCRIC faces deadline in ForestCo bidding
4/7/81	Corporate ties should shift BCFP control south
4/7/81	Notice to SHS: ForestCo directors say Noranda offer acceptable
4/7/81	Firms line up for a chance to bid for Noranda's 28% BCFP stake
4/8/81	Noranda known as 'solid corporate citizen'
4/8/81	Bidding war suspense mounts as trading in ForestCo shares boom
4/8/81	ForestCo shareholders face choices
4/8/81	ForestCo reports 11.7 per cent boost to sales
4/8/81	Noranda wouldn't alter ForestCo
4/9/81	BCRIC rejects 'predator' label
4/9/81	Block trades in ForestCo raise speculation on Brascan bid
4/10/81	BCRIC opens door: Mystery buyer looms for ForestCo
4/10/81	ForestCo chairman criticizes premier over BCRIC 'special privileges'
4/10/81	BCRIC drops profitable ForestCo fight
4/10/81	Low price ForestCo Ltd. share tender unsettles VSE
4/10/81	Stock option could gain Knudsen $1m
4/11/81	Pollution charges set
4/11/81	BCRIC withdrawal acclaimed
4/11/81	BCRIC may return to ForestCo fray
4/11/81	BCRIC to reap $57m in ForestCo windfall
4/12/81	ForestCo bids highlight the trouble with takeovers: few benefits in terms of increased real wealth
4/12/81	Sins of Bennett's BCRIC baby will come back to haunt him
4/13/81	Reichmann family has 20% stake in ForestCo

4/14/81	Olympia hasn't any designs on ForestCo
4/14/81	Large ForestCo stake provided no clout for BC Resources
4/14/81	ForestCo, Noranda discuss assets
4/24/81	'Going to be lovely': Noranda gets 49 pct. of ForestCo; staff assured
4/25/81	Noranda obtains 49.8% of ForestCo
4/26/81	Noranda buys control of ForestCo
4/27/81	BCRIC's true colors
4/28/81	ForestCo slump partly blamed on depressed markets
4/30/81	Noranda will place five directors on 14-man ForestCo board
5/1/81	Noranda tallies ForestCo shares
5/9/81	Noranda bares ForestCo details
6/11/81	Canada's share of US market seen declining
6/21/81	ForestCo seeking seven new directors
6/26/81	Knudsen sees hope for ForestCo in '82
6/26/81	Most of ForestCo's new directors from Noranda
6/26/81	Sale will help ForestCo finance expansion
7/5/81	ForestCo board like family reunion
7/17/81	ForestCo bows out of Buckley: Cost factors, not ombudsman, cited as cause
7/23/81	ForestCo net plunges
7/23/81	ForestCo 'concerned' as earnings fall
7/28/81	Toronto power battle will thud home here
8/14/81	ForestCo slows spending plans
8/25/81	Militant locals picketing ForestCo mills, sites on Island
9/11/81	'Disaster' looming in Port Alberni - labor trouble lingers
9/14/81	Plan for Alberni considered
9/16/81	Office pact at ForestCo clears way for IWA return
9/16/81	ForestCo shutdown feared: 57 workers threaten operations
9/17/81	2 ForestCo disputes resolved
9/17/81	Electricians short-circuit settlement
9/18/81	ForestCo reopens Alberni mill
10/7/81	ForestCo cuts back plans as profits squeezed
10/8/81	ForestCo fined by court
10/8/81	Slumping profits at ForestCo force spending cutback
10/11/81	ForestCo layoffs may hit 725 in Alberni
10/14/81	ForestCo denies staffing layoff
10/22/81	ForestCo chops research staff; 5,600 B.C. mill hands idle
10/23/81	Slump means axe is out at ForestCo
10/23/81	160 at Harmac to be idled
10/26/81	ForestCo drops $38.4 million: Record loss stuns forest giant
10/27/81	ForestCo workers learn company to axe jobs
10/28/81	ForestCo hit by $38m loss in quarter: swing savage for forest firm
10/28/81	Head office staff cut at ForestCo
10/29/81	ForestCo cuts head-office staff

10/31/81	Pulp union members okay cut in hours to save jobs
10/31/81	The word's out at ForestCo: call Flo
11/2/81	Making hard choices at ForestCo
11/3/81	Former ForestCo executive loses bribe appeal
11/3/81	Two raise newsprint price
11/4/81	ForestCo, BCFP raise price of newsprint
11/7/81	ForestCo retrenches as earnings disappear
11/8/81	ForestCo indifferent to immigration policy, MP says
11/23/81	From layoff to layette
11/24/81	ForestCo tax dispute goes to court
11/30/81	Giant paper machine sets production record at mill
12/3/81	ForestCo's Knudsen: Shareholders did well; workers didn't
12/7/81	ForestCo to transfer jobs out of Vancouver
12/8/81	ForestCo planning further axings
12/11/81	ForestCo tightens its hiring policies
12/12/81	ForestCo hires 'close to home'
1/23/82	ForestCo unveils slimmer corporate look
1/27/82	Non-union pulp battle hearing set
2/4/82	ForestCo bid fought by union
2/5/82	ForestCo defends purchase of non-union pulp
2/12/82	Paperworkers ordered to end ForestCo pulp ban
2/12/82	Handle pulp, Alberni workers told
2/19/82	ForestCo, Whonnock in the red
2/22/82	ForestCo bosses face 10-to-15% pay cuts
2/23/82	No tears shed for ForestCo pay cuts
2/23/82	ForestCo axe carves away at wages
2/24/82	Some firms may die, ForestCo chief warns
2/27/82	Sale of ForestCo shares brings bright spot
2/27/82	ForestCo cuts pay, freezes increase: grim 1982 for forestry giant
3/3/82	ForestCo to close Island mill for five weeks
3/5/82	Future - 'all bad news': TV callers roast ForestCo official
3/27/82	ForestCo brass 'disappointed' by credit rating reduction
3/28/82	S&P reduces ForestCo's credit rating
3/30/82	3 BC forest firms lay off 1800 workers
3/31/82	ForestCo slump continues; officers take pay cut
4/17/82	Weekly layoffs at ForestCo put 90 out of work
4/18/82	NewWest ForestCo plant stays shut
4/21/82	More layoffs expected
4/22/82	ForestCo loses $10.4 million
4/23/82	IWA says wage claim bid to shift the blame
4/23/82	Knudsen's forecast adds to BC's gloom
4/23/82	Wage concession demands loom as ForestCo posts third loss
4/23/82	ForestCo stresses survival as profit drops

4/30/82	ForestCo to idle pulp mills
4/30/82	Chemainus mill crews to be laid off again
5/10/82	ForestCo closes Prairie mill
5/14/82	Some forest workers back
5/20/82	Harmac mill to close
5/23/82	Former giant log camp will close: Bunk-house bargains to end
5/25/82	ForestCo lays off loggers
5/26/82	ForestCo details further cutbacks, layoffs
6/4/82	Mill closes
6/10/82	ForestCo HQ for sale
6/20/82	Alberni sawmill to shut
7/2/82	ForestCo encourages buying shares
7/5/82	ForestCo defends its sale of logs to China
7/6/82	ForestCo to go ahead with China deal
7/29/82	Mill cuts another 89 workers
7/29/82	ForestCo employees glad for any job
8/5/82	ForestCo extends logging layoffs
8/8/82	ForestCo extends Alberni layoffs
8/21/82	ForestCo staff faces more layoffs
9/4/82	Unions unhappy with proposed marriage
9/9/82	ForestCo 'to close' Charlottes' logging
9/10/82	ForestCo to curtail logging unless markets found
9/15/82	New closure hits ForestCo plant
9/18/82	Alberni sawmill to reopen
9/21/82	Fired worker wins 'distress' suit
9/21/82	LRB to decide local issues
9/24/82	ForestCo log exports rejected
9/24/82	ForestCo log export application rejected by the government
9/28/90	ForestCo still cuts payroll
10/19/82	ForestCo shutting down 3 plants
10/27/82	ForestCo loses $51.5 million
10/27/82	ForestCo loses $51 million...
11/5/82	ForestCo severance pay hits $11.5 million
11/10/82	ForestCo to lay off 250
11/12/82	170 at ForestCo: Harmac workers laid off
11/12/82	Harmac lays off 170
11/14/82	ForestCo lifts Brazilian stake
11/15/82	ForestCo takes over Brascan shares
11/18/82	Embrasca deal cost ForestCo $9.2m
11/19/82	ForestCo marketing key to success
11/23/82	Forest unions drop rivalry to battle ForestCo
11/23/82	Mill's office workers can't join clerical union
11/23/82	3 unions to gang up on ForestCo

11/27/82	ForestCo lays off 1,000 employees
11/28/82	More layoffs and complete year-end shutdown for ForestCo
12/2/82	3 unions to watch ForestCo
12/2/82	Unions to challenge ForestCo
12/4/82	ForestCo: Profile of a very rough ride
12/10/82	ForestCo boss agrees to meet union
12/10/82	Knudsen, three unions to meet
12/13/82	ForestCo pins hopes on 1983 after $100 million loss
12/13/82	Poor results force ForestCo to cut spending
12/21/82	ForestCo chief sees slow recovery
12/23/82	ForestCo opens new Japan market
12/24/82	Don't blame us, says Knudsen
12/30/82	ForestCo to reopen sawmill in southeast Vancouver
1/6/83	ForestCo brass put salary hike back into stock
1/7/83	ForestCo sells tax benefits
1/7/83	ForestCo gains $47m from US sale
1/9/83	ForestCo sells stake in mill
1/20/83	ForestCo credit rating cut by Moody's
1/21/83	Reopening of sawmill unlikely
1/21/83	Forestco rating cut
2/3/83	ForestCo sees '83 turn around
2/3/83	ForestCo credit rating dropped
2/8/83	Laid off disabled loggers push for better protection
2/24/83	ForestCo reports huge loss
2/24/83	House stimulated interest rates falling: Knudsen expects profit this year
2/24/83	ForestCo closes mill after losing $57m
2/27/83	ForestCo ponders container merges
3/2/83	ForestCo Island log supply safe
3/4/83	Use license or lose it, ForestCo told
3/4/83	Joint action urged
3/6/83	Socreds try to muscle ForestCo
3/6/83	Forestco threat empty?
3/8/83	Mill closure sparks timber rights fray
3/8/83	Mill workers hope for change by ForestCo
3/9/83	ForestCo selling HQ for $62m
3/9/83	ForestCo is warned to replace mill
3/11/83	ForestCo building sale finalized
3/22/83	No solution near for ForestCo
3/22/83	Mill dispute costing ForestCo $6 million a day
3/23/83	Costly ForestCo strike 'worries US buyers'
3/23/83	Wildcat strike hits ForestCo mill
4/4/83	ForestCo Ltd. looks to higher operating rates
4/5/83	IWA calls for mill start-up

4/11/83	Woodroom to open
4/15/83	ForestCo makes Chemainus proposal
4/20/83	Bailout after Rhetoric
4/21/83	Barrett not worried at ForestCo shrugs Chemainus offer
4/21/83	Knudsen fears labor trouble
4/26/83	ForestCo offers to reopen sawmill
5/3/83	Court verdict: ForestCo entitled to $9 million
5/3/83	ForestCo wins $9 million judgment
5/12/83	ForestCo gives up lease
5/27/83	ForestCo expects $50 million from share sale
5/27/83	ForestCo to raise cash from stock sale
6/1/83	Talks fail on mill opening
6/7/83	ForestCo joins container plant merger
6/9/83	Chemainus sawmill
6/18/83	Chemainus sawmill to be closed forever
6/21/83	ForestCo faces sawmill deadline
6/22/83	ForestCo to spend $15m in Sask.
7/2/83	Forestco shares
7/3/83	Weststar and ForestCo offer shares
7/13/83	ForestCo offers newsprint incentive
7/20/83	ForestCo, Jeuro offer new container service
7/28/83	UK merger by ForestCo
8/3/83	First in two years: ForestCo posts quarterly profit
8/3/83	ForestCo back in the chips
8/4/83	Smith named new ForestCo chief; Knudsen to step down Oct. 1
8/4/83	Knudsen waited for ForestCo turnaround
8/7/83	Extra job for Adam
8/8/83	Good wood left behind: ForestCo logging methods criticized
8/8/83	Forests minister gets after ForestCo on waste of timber
8/9/83	ForestCo warned to reduce log wastage
8/27/83	ForestCo reducing capacity over poor markets
8/28/83	Mill to close
8/31/83	Chemainus training 'only a beginning'
9/16/83	Forestry giant 'wary'
10/6/83	Purchase by China a surprise to ForestCo
10/6/83	Chinese shelve BC mill plan
10/20/83	ForestCo to close plant; plywood glut blamed
11/1/83	Lower prices slash ForestCo earnings
11/2/83	ForestCo profit falls to $600,000 in quarter
11/3/83	ForestCo merging its British container plants
11/10/83	ForestCo raises newsprint price
11/11/83	ForestCo raising US price for its newsprint
12/1/83	Harmac jobs safe

12/1/83	Harmac recalls 220 employees
12/1/83	ForestCo and radio-maker given Ottawa money
12/2/83	Forestco makes share offer
12/2/83	Forestco plans issue
12/7/83	ForestCo denies logging a secret
12/15/83	Mill closes earlier
12/23/83	Former mill site topic in talks
1/21/84	ForestCo acquittal holds in case of disturbed fish
1/22/84	Court backs Forestco
2/18/84	ForestCo orders 3 new ships
2/23/84	Mill puts Chemainus back on map
2/23/84	New mill, profit for ForestCo
2/23/84	ForestCo profitable; we'll build mill
4/24/84	Cost-cutting, sale of assets assist in turnaround at ForestCo
4/26/84	ForestCo optimistic for full year
6/17/84	ForestCo completes sale of paper bag plant
6/18/84	Paper bags: ForestCo selling plant
6/20/84	Loggers walk to protest suspension
6/21/84	Newsprint-use climb spurs ForestCo to up price
6/22/84	ForestCo to increase newsprint price
9/6/84	ForestCo gets loan to upgrade plant
10/4/84	ForestCo to eliminate 60 jobs at sawmill
10/5/84	Powell River layoffs due
10/18/84	ForestCo plea echoes mining
11/6/84	Earnings climb for forest firm
11/10/84	Psst... Want to hear ForestCo's secret?Forest giant's outlook bright
11/21/84	Paper workers return
11/28/84	ForestCo stumped on Meares Island
12/3/84	ForestCo wins order against protesters
12/18/84	ForestCo bid to bar 2 logging foes fails
1/8/85	Forest firm's lawyer warns of disruption
1/17/85	ForestCo exec takes axe to Victoria for taxes1
2/9/85	ForestCo up 49 pct in last quarter earnings
2/11/85	Pickets close Harmac pulp mill
2/12/85	Supervisors did union job: Mill workers staying out
2/12/85	Tight wood products market keeps lid on ForestCo profit
2/15/85	ForestCo to sue union
2/15/85	ForestCo wants damages
2/21/85	Mill scrap sent to arbitrator
3/5/85	ForestCo suspends seven in walkout at Harmac
3/7/85	ForestCo urges forestry overhaul
3/10/85	ForestCo climbing up
3/29/85	ForestCo stays out of dispute

3/29/85	ForestCo chief besieged, even at home
3/29/85	ForestCo boss blasts shrill factions
3/29/85	ForestCo's president calls for unity
4/19/85	B.C. must settle land claims, ForestCo executive says
4/26/85	ForestCo will use profit to cut debt
4/27/85	Estevan logging halted
4/28/85	ForestCo shuts down operation
5/8/85	Poor performance in quarter sends ForestCo shares skidding
5/8/85	ForestCo, Noranda shares hit three-year low
5/12/85	Quality remains a key
6/14/85	ForestCo battles Meares ruling
8/1/85	ForestCo profit improves
9/6/85	Fears stall, burning of sawdust
9/29/85	'Brain runs nursery'
10/9/85	Sex, diets, UFOs, grist for ForestCo mills
11/6/85	ForestCo earns more, trims debt load
11/6/85	Deal to haul logs defended
11/7/85	Talks get ForestCo crews back to work
11/27/85	Harmac mill set to close
12/4/85	North America swamped with lumber, ForestCo says
12/18/85	Harmac mill facing interruption
12/18/85	Forest giant wins Powell River assessment case
12/21/85	ForestCo advised to seek tax refunds from Victoria
12/23/85	Powell River can't pay back ForestCo
12/24/85	ForestCo buys oil and gas interests
12/24/85	Size of tax refund to Forestco astounds B.C. town
1/4/86	ForestCo loses bid to recover water charges
1/7/86	ForestCo sells shares to cut debt
2/8/86	ForestCo increases earnings
2/9/86	ForestCo's net profits jump 122%
2/18/86	ForestCo to sell unit
2/18/86	B.C. not the only place for new lumber mill: ForestCo
2/18/86	ForestCo chooses Expo to introduce new beam
2/18/86	ForestCo to sell shares of Dutch company
2/23/86	Sale a deal for ForestCo
3/5/86	ForestCo wants to drop NYSE listing
3/5/86	ForestCo will vote to delist shares
3/6/86	ForestCo seeks NYSE delisting
3/27/86	Wood debris in 2 creeks prompt complaint about 'poor logging'
3/28/86	ForestCo timid about prospects despite improvement in prices
3/30/86	Not out of woods, says ForestCo chief
5/6/86	ForestCo pleased with net
5/14/86	Victoria won't pay refund owed ForestCo

Date	Title
5/23/86	ForestCo
5/25/86	ForestCo's over-the-counter
6/16/86	Just dad's roses- and tears
6/18/86	Millworker left no benefits
6/25/86	ForestCo chief raps U.S. argument
6/27/86	ForestCo prints new price
7/13/86	How to pay ForestCo award problem for pulp union
7/18/86	Woodworkers remain off job in Port Alberni
8/1/86	ForestCo's cost-cutting pays off big
8/28/86	Block timber tariff move, ForestCo urges U.S. buyers
9/20/86	Fighting-trim ForestCo faces new uncertainty
9/20/86	Forest firm signs new tree farm deal
9/20/86	Industry reps join strategy team, ForestCo
10/1/86	ForestCo boss gets it in the ear
10/8/86	ForestCo seeks special status
10/8/86	ForestCo seeks relief from U.S. duty
10/9/86	ForestCo asking for exemption to countervailing duty on lumber
11/5/86	ForestCo coffers bulging, despite strike setback
11/5/86	9-month ForestCo profit increases
11/28/86	ForestCo
12/30/86	B.C. loggers back on job at ForestCo
1/8/87	ForestCo seeking tax break
2/7/87	ForestCo triples '86 profit
2/12/87	ForestCo to expand
3/18/87	ForestCo raises standard newsprint price by 5 percent in the U.S.
3/18/87	ForestCo jacks prices on newsprint for U.S.
3/27/87	ForestCo stock to split 3 for 1
3/27/87	ForestCo in chips
3/27/87	ForestCo begins shift out of survival mode
3/28/87	ForestCo cutting wide swath in forestry revival
4/21/87	ForestCo blows horn on record
5/22/87	Adding value to lumber a basic principle
6/3/87	ForestCo drawn tighter into Noranda's embrace3
7/30/87	ForestCo's net soars
8/13/87	Lumber auction worth $3.5 million
8/29/87	ForestCo logging plan for Charlottes comes under fire
9/23/87	Island tourist town calls ForestCo plans unwelcome luggage
9/27/87	ForestCo ups paper price
10/2/87	ForestCo plans forestry campaign
10/23/87	ForestCo trio wins science award for lumber creation
10/30/87	Forest firm's net soars
11/5/87	Market fall makes ForestCo cautious
11/5/87	ForestCo expects strong demand through 1988

11/6/87	Keen for recession, ForestCo executive says
11/7/87	ForestCo stalls big mill expansion
11/8/87	ForestCo puts Port Alberni plans on hold
11/9/87	ForestCo confirms project plan on hold in Port Alberni
11/10/87	ForestCo puts mill on hold in 'cautious' reappraisal
11/20/87	ForestCo deferral applauded by analysts
12/30/87	Do it again, waste-worried Victoria tells ForestCo loggers: Giant also loses some cut
12/30/87	Timber waste claim handled, ForestCo boss says
12/31/87	Beef spurs logging inquiry
1/6/88	Haida seek diversification in complaint against ForestCo
1/7/88	ForestCo should be trying harder
1/9/88	Fired ForestCo supervisor wins compensation
2/17/88	Forester fears investigation of ForestCo logging compromised
2/19/88	Conflict feared in forest audit
2/20/88	Forestry probe must be impartial
2/26/88	Figures reveal waste by ForestCo: Limit exceeded, firm's papers show
3/9/88	ForestCo rewards top man with hefty pay hike
3/31/88	ForestCo's Smith urges rethink of new forestry charges
3/31/88	ForestCo chief rakes political 'commandos'
3/31/88	Industry voice touted
4/3/88	'Danger ahead'
4/5/88	Stubbs VP
4/7/88	Act fast on ForestCo report, B.C. forests minister urged
4/12/88	ForestCo eliminates journalism award
4/15/88	Probe into B.C. forest firms find too much wood wasted
4/16/88	Critics of firm feel vindicated by ForestCo report
5/2/88	ForestCo opens log-sorting facility
5/3/88	ForestCo quarterly earnings reach record $96.1 million
5/19/88	Log roads on hold
6/17/88	Parallam plant to employ 107
6/29/88	Police decide against laying Forestco charges?
6/30/88	ForestCo rec site plan encounters opposition
7/5/88	ForestCo tries to block Meares trails
7/12/88	Too late to halt trail, group says
7/22/88	ForestCo seeks to halt building of trails
7/28/88	ForestCo closure called a game
8/3/88	Environmentalists called no fall guys
8/16/88	Lumber on the block
9/21/88	ForestCo heeds islanders
9/26/88	ForestCo cleared of charges
10/1/88	B.C. seeks timber loss solution
10/2/88	Harmac resumes production
10/4/88	ForestCo to improve newsprint mill

10/7/88	ForestCo proposes to double sitka spruce forest reserve
11/1/88	ForestCo stands by newsprint price hike
11/9/88	Wildcat shuts Powell River mill
11/15/88	Mill grows cold in dispute: Workers idled in fight over contracted out work
11/16/88	Union locals meet over pulp strike
11/18/88	ForestCo reaches agreement in Powell River strike
11/18/88	Pulp workers consider end to walkout
1/23/89	ForestCo gives walkout union losses bill of $6.3 million
2/22/89	At loggerheads
3/28/89	ForestCo names veteran to new development vice- presidency
3/31/89	ForestCo defends record on logging
3/31/89	ForestCo to change guard
3/31/89	ForestCo chief defends forest practices
4/6/89	ForestCo holds the line on its senior executives' pay for 1988
4/17/89	Drop in quarterly earnings interpreted as industry sign
4/18/89	ForestCo results fuel stumpage debate
9/25/89	ForestCo denies log plans violate edict
9/29/89	Forest giant's fine of $100 denounced
11/3/89	Second death in logging family spurs shutdown1
12/23/89	ForestCo denies yellow cedar being wasted as firewood
1/3/90	ForestCo offers its critics forest tour
1/23/90	Forest giant issues warning
1/30/90	Big cut in profits: Two top forest companies hit
1/30/90	ForestCo earnings down 26%
1/31/90	Pitch for Coquitlam recycling plant today
2/5/90	Union attacks ForestCo's Leningrad mill proposal
3/6/90	Kinder image seen in gender: Masculine, feminine formula to guide ForestCo through the woods
3/6/90	Spending brings ForestCo goal closer: Capital expenditures cited in higher-value products
3/6/90	Forest giant pays executives top dollar, report states
3/8/90	Rational choices challenge ForestCo boss
3/15/90	45 jobs to be cut in battle over Meares, ForestCo says
3/16/90	ForestCo
3/30/90	ForestCo critics find no middle ground
3/30/90	Shareholders grill ForestCo officials on Carmanah logging conflict
3/30/90	Split on forest policy: Opponents square off at ForestCo meeting
4/10/90	Property on Galiano Island not for sale, ForestCo says
4/12/90	ForestCo study 'a sad joke': Carmanah logging research under attack:ForestCo says trust us, critics say no way
4/16/90	Carmanah second blow for ForestCo
4/17/90	Research paying rich dividends for B.C. forestry giant: ForestCo developing new products for marketplace
4/18/90	ForestCo profit drops
4/28/90	ForestCo Royal City mill to stay shut

4/28/90	ForestCo Powell River pollution called 'totally unacceptable'
4/29/90	ForestCo shuts NewWest bandmill
4/30/90	ForestCo, group trade charges over Bight
5/3/90	Mill malfunction dumps oily mess: Residents voice anger over cleanup
5/12/90	ForestCo to close Harmac mill for 2 weeks
5/14/90	ForestCo closing mill on Vancouver Island
5/14/90	A warning to ForestCo: 'Stop logging' says Indians
5/15/90	Soft market prompts two-week ForestCo closure2
5/16/90	Land use the 'key issue'
6/14/90	ForestCo calls WCWC orcas campaign misleading1
6/14/90	Price for Moresby unknown
6/23/90	Owl protection to aid producers, ForestCo officials say
7/11/90	Low demand cited in mill shutdown
7/18/90	ForestCo's feeling pinch: High costs, hefty buck, production chop cited
7/27/90	Harmac mill closure extended
7/31/90	ForestCo blames glut in closure of two Island mills
8/1/90	2-week closure
8/16/90	Japanese spend $2 million on wood at Island auction
8/6/90	ForestCo bid to increase emissions has neighborhood worried
9/8/90	ForestCo to close mill for week to aid fish
9/19/90	Salmon return weak despite mill closure
10/17/90	Cry 'timber' for ForestCo earnings as mill layoffs climb in B.C.
10/17/90	ForestCo earnings dive: Nine-month profit drops 68% from '89
10/26/90	ForestCo resumes Tsitika logging plans
10/30/90	Standoff forces ForestCo to review valley work
11/5/90	350 workers await ForestCo word on Alberni plant shutdown
11/6/90	Alberni's mill faces closure
11/23/90	ForestCo's rating chopped
12/6/90	ForestCo ready to sell 2,800 hectares on Galiano Island
12/7/90	ForestCo agrees to sell land
1/2/91	Tree felling debate now a political issue
1/9/91	ForestCo to sell its Galiano land
1/9/91	Half of Galiano put up for sale: ForestCo seeks buyers among B.C. residents
1/24/91	ForestCo executive: Big is good
2/8/91	ForestCo nurtures its sea lion show
2/8/91	ForestCo bosses take $3 million bonus cuts: Poor fourth quarter results common factor in industry
2/9/91	ForestCo cuts top bonuses
2/19/91	Forest industry still doesn't cut it with public
2/19/91	ForestCo to tell its story to TV audience
3/7/91	ForestCo to cut newsprint production this year
3/8/91	Top brass at ForestCo get large pay chops
3/9/91	No bonuses at ForestCo: Executives take big hit as profits slump
3/16/91	ForestCo closes mill

3/28/91	ForestCo's sporting new chief
3/30/91	ForestCo gets earful on Alply closure: Workers angry with shutdown speak of Japanese markets
3/31/91	ForestCo mill workers voice concerns
4/17/91	Forestry giant lifted into black by its affiliates
4/18/91	ForestCo forms new U.S. partnership
4/25/91	We will sue protesters, says ForestCo
5/2/91	10 vehicles lost as barge sinks: ForestCo loggers, vessel's crew scramble for lives
5/26/91	Harmac pulp mill to close for 2 weeks
5/30/91	Another big ForestCo mill to shut temporarily
6/8/91	Sawmill workers facing layoffs
6/9/91	ForestCo wants public reaction to forest-management plans
6/15/91	Island communities to learn ForestCo's tree farm plans
6/16/91	Chainsaws vs. chains: ForestCo's five-year plan spurs protestors
6/16/91	ForestCo unveils major logging plan
6/18/91	ForestCo to market bionic wood: U.S. firm gets 51% share of venture
6/18/91	ForestCo links with U.S. firm in wood-product venture
6/19/91	ForestCo seeks more Indian employees
6/20/91	IWA tackles ForestCo's cutting rights
6/20/91	War in ForestCo's Island farm
6/29/91	Forest giant suing Galiano Island Trust
7/17/91	Large losses force ForestCo to continue scaling down
7/17/91	ForestCo posts $11.3m loss
7/25/91	ForestCo says Alberni job cuts needed for survival there
7/30/91	Public gets more time to look at ForestCo's plans
8/8/91	Workers cooling heels: Bid for Somass mill mulled
8/12/91	ForestCo sets deadline: Firm proposal sought for mill
8/16/91	Old Somass mill closes today
8/23/91	Commissioner to probe ForestCo's job, timber options
9/26/91	ForestCo considers joint deal to build newspaper recycling plant in U.S.
10/8/91	ForestCo nods to foes' test project
10/8/91	Pulp mill workers threaten strike
10/17/91	Soft prices contribute to ForestCo's rising loss
10/30/91	B.C. won't charge ForestCo for PCB spill
11/5/91	Ottawa helps ForestCo
11/5/91	Gov't ForestCo sign deal
11/5/91	ForestCo signs $45 million R&D deal: Agreement with government seen as protection for research jobs
11/25/91	ForestCo calls for more proof of mill danger
12/12/91	ForestCo to axe up to 200 Powell River jobs: Union not surprised but disappointed
12/12/91	Richmond to deal with ForestCo, official says: Compensation offered for lost rights
12/12/91	Mill jobs cut as machines retired
12/12/91	ForestCo closing newsprint machine
12/17/91	Wilson says ForestCo deserves a tax break; check math, retorts Powell River mayor

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